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Although Vermont does not have a comprehensive system of higher education that embodies both the public and private sectors, the study summarized in this report states that the components for such a system are there. The Institute for Educational Development undertook 3 general activities in this study. First, data were gathered to establish a sound basis for analyzing and projecting the need for additional facilities and programs for higher education in Vermont. Secondly, although originally a comprehensive plan for higher education in the state was to be developed, this came in the form of a recommendation for the establishment of a permanent "Coordinating Council for Post-Secondary Education in Vermont" to fulfill this function. Suggestions for its structure and function were made. Third, the financial capability of Vermont with special reference to the state's aid to education was analyzed. This report is a summary and commentary on the data that were collected, and a series of recommendations. The data, presented extensively in tables, include figures on student enrollments and projections, course and degree offerings library and physical facilities, and number of faculty and staff. (DS)

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HIGHER EDUCATION IN VERMONT:
ITS RESOURCES AND NEEDS

A Report to the Vermont Commission
on Higher Education Facilities

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PREFACE AND ACKNOWLEDGEMENTS

In its proposal of May, 1968, to the U. S. Office of Education for a Higher Education Comprehensive Facilities Planning Grant, the Vermont Commission on Higher Education Facilities outlined several activities which it wished to undertake. Upon approval of the grant, the Commission engaged the Institute for Educational Development (IED) to conduct certain of the tasks outlined in the proposal. These tasks involved two general areas. The first area was the collection of data needed to establish a sound basis for analyzing and projecting the need for additional facilities and programs for higher education in the State of Vermont. The second area was the development of a comprehensive plan for higher education and recommendations for its implementation. The third area was an analysis of the financial capability of Vermont with special reference to the State's aid to education.

This report is a summary of and commentary on the data that were collected, and a series of recommendations which IED and its consultants believe should be considered by the officials who will be responsible for the implementation of a plan.

In recent years there has been discussion within the State of Vermont about the need for comprehensive planning. In August 1968 the Committee to Study Higher Education of the Legislative Council, of which Senator Stoyan Christowe was Chairman, submitted its report, recommending the establishment of a Higher Education Planning Council in Vermont. With minor changes the Institute for Educational Development recommends a similar agency with similar responsibilities to be called a Coordinating Council for Post-Secondary Education in Vermont. Perhaps the major difference between the two recommendations is in the membership of the respective Councils. The Council as recommended by the Legislative Committee includes more members directly from the educational establishment. The Council as recommended by IED attempts to be more representative of the many groups interested in post-secondary education.

The recommendations offered in Part II of the report do not, strictly speaking, constitute a comprehensive plan for post-secondary education in Vermont. In the view of the Commission and of the consultants to IED, it did not seem appropriate to develop such a plan now for the following reasons. First, the data in Part I dealing with projected student populations do not appear to warrant the establishment of a new institution within the next decade. The unique population and geographical characteristics of Vermont require testing the need and demand for post-secondary education, for determining the types of programs required, and for stimulating the demand for higher education, before it will be possible to plan with any degree of confidence where new institutions should be located and what their roles and scopes should be. Second, since it appears that the establishment of an agency to plan and coordinate post-secondary education is imminent, it did not seem feasible to preempt the responsibility of that agency. The recommendations do, however, outline the areas of concern which will necessarily have to be considered, offer concrete suggestions and guidelines for procedures, and provide a substantial basis for the newly established agency to create its own plan.

The recommendations, undoubtedly, will not satisfy everyone, but they should serve to illuminate choices and guide action. If the State's financial and educational resources are to be efficiently utilized and the needs of its students and economy effectively met, there is no doubt that the creation of a Council to plan and coordinate post-secondary education in Vermont is a most urgent concern for the Governor and Legislature of Vermont.

IED, as the organization responsible for this study, wishes to acknowledge the cooperation and assistance it has received from the many individuals responsible for and interested in post-secondary education in Vermont, particularly the members of the Commission on Higher Education Facilities, and the presidents and officers of the institutions who provided the data. It is especially appreciative of the work of Dr. Charles E. Adkins, now President of the Council of Independent Colleges and Universities in the State of Pennsylvania, who served as Director of the project, of Mr. Mitchell N. Call of the Office of Institutional Research at the University of Vermont who, as the Resident Director for the study, was responsible for the collection of the data, and of the consultants who assisted IED in preparing this report: Dr. Edward Y. Blewett, President, Westbrook Junior College; Dr. Dana M. Cotton, Director of Placement, Graduate School of Education, Harvard University; Dr. C. Russell deBurlo, Vice President for Administration, Tufts University; Dr. Warren G. Hill, Director, Commission for Higher Education, State of Connecticut; and Dr. David K. Smith, Chairman, Department of Economics, Middlebury College.

Dale E. Bussis
Institute for Educational Development

August, 1969

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AN OVERVIEW

Strictly speaking, the State of Vermont does not have a comprehensive system of higher education which embodies both the public and independent sectors. The components for such a system, however, are there. What is lacking is a mechanism by which the various components of post-secondary education can be coordinated into an operating system.

In 1968 there were twenty-one institutions of higher education in Vermont with degree-granting privileges from the State Department of Education in Vermont. Five institutions are public, sixteen are independent. They represent a wide range of academic tradition, beginning with the University of Vermont, which was established in 1791, up to the founding of Royalton College in 1965. Within the last twenty-five years significant developments have taken place within the State College system. The teacher training institutions at Castleton, Johnson, and Lyndon became State Colleges in 1951, and the Vermont Technical College was established in 1957. During that same twenty-five year period, five new private institutions were established: Antioch Putney Graduate School of Education, the College of St. Joseph the Provider, Marlboro College, Royalton College, and Windham College.

Tables 1 and 2 give a comprehensive summary of the institutions of higher education in Vermont. Table 1 lists the public and independent institutions and also their locus of control, the year they were founded, the nature of their student bodies, the regional accrediting agency of the institution, the range of tuition and fees, the annual cost of room and board, the availability of National Defense Education Act (NDEA) loans, and residential facilities. Table 2 shows the number of faculty members, administrative personnel, and supportive personnel employed by these institutions. The magnitude of higher education as an economic enterprise within Vermont is evident from the information in Table 2. For over 3,900 full-time staff members and 1,200 part-time staff members who are employed, a conservative estimate would place the expenditures for salaries alone at approximately $30,000,000.

Public Institutions

The five public institutions represent a wide range of educational opportunity in terms of the level of degrees and the variety of curricula offered, beginning with the two-year technical college at Randolph offering the associate degree, to the three State colleges at Castleton, Johnson, and Lyndon offering the baccalaureate degree, to the University of Vermont offering the baccalaureate, and graduate and professional degrees.

Independent Institutions

The independent sector includes seven coeducational institutions offering the baccalaureate degree, three women's colleges offering the baccalaureate degree, two women's colleges offering an associate degree, two men's colleges offering the baccalaureate degree, a coeducational business college offering the associate degree, a graduate school of education, and a specialized school for international training. These institutions contribute to the economy of the State, but one of their greatest values is their potential contribution to a statewide system of post-secondary education.

TABLE 1

GENERAL INFORMATION ON VERMONT INSTITUTIONS OF HIGHER EDUCATION
(SEPTEMBER, 1968)

Institution	Control	Year Founded	Student Body	Accrediting Agency	Tuition & Fees 1968-69 In-State	Tuition & Fees 1968-69 Out-State	Annual Board & Room	NDEA Loans	Housing 1967-68
University of Vermont and State Agricultural College	State	1791	Coed	NEA[1]	$678	$1,878	$ 870	Yes	2,334
Castleton State College	State	1867	Coed	NEA	368	1,118	900	Yes	562
Johnson State College	State	1828	Coed	NEA	368	1,118	900	Yes	491
Lyndon State College	State	1911	Coed	NEA	368	1,118	900	Yes	354
Vermont Technical College	State	1957	Coed		396	896	900	No	404
Antioch-Putney Graduate School of Education	Private	1950	Coed	NCA[2]	$3,000		314*	Yes	18
Bennington College	Private	1925	Women	NEA	2,750		1,100	No	446
Champlain College	Private	1878	Coed		1,175		890	No	396
College of St. Joseph the Provider	R.C.	1950	Women		600		900	No	48
Goddard College	Private	1938	Coed	NEA	2,600		1,000	Yes	596
Green Mountain College	Private	1834	Women	NEA	3,300**			Yes	704
Marlboro College	Private	1946	Coed	NEA	2,100		1,050	Yes	142
Middlebury College	Private	1800	Coed	NEA	2,101		1,075	Yes	1,185
Norwich University	Private	1819	Men	NEA	1,820		870	Yes	1,269
Royalton College	Private	1965	Coed	-	1,100		900	-	150
St. Joseph's College	R.C.	1926	Coed	-	623		600	-	33
St. Michael's College	R.C.	1904	Men	NEA	1,400		850	Yes	1,065
School for International Training	Private	1932	Coed	-	Varies***			No	110
Trinity College	R.C.	1925	Women	NEA	855		900	Yes	330
Vermont College	Private	1834	Women	NEA	2,050		950	No	485
Windham College	Private	1951	Coed	NEA	1,800		1,000	Yes	570

* Per Quarter

** Combined tuition, fees, room and board

*** Varies with length of program (averages $75-$100 per week including room and board)

[1] New England Association of Colleges & Secondary Schools.

[2] North Central Association of Colleges & Secondary Schools.

TABLE 2

FACULTY, ADMINISTRATIVE PERSONNEL, AND SUPPORTIVE PERSONNEL
(SEPTEMBER, 1968)

Institution	Faculty						Administrative Personnel		Supportive Personnel		Total Staffing	
	Degrees Held											
	Doctorate	Profes-sional	Master's	Other Degrees	Full-Time	Part-Time*	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
University of Vermont and State Agricultural College**	236	95	147	19	497	189	199	4	847	245	1,543	438
Castleton State College**	15	-	41	8	63	8	12	2	43	22	118	32
Johnson State College	14	-	22	3	39	11	7	-	33	7	79	14
Lyndon State College	5	1	27	5	37	8	6	-	27	6	70	14
Vermont Technical College	-	-	14	21	37	-	7	-	38	-	82	-
TOTAL PUBLIC	270	96	251	56	673	216	231	6	988	280	1,890	498
Antioch-Putney Graduate School of Education	2	-	2	-	4	3	1	2	-	1	5	4
Bennington College	16	-	23	27	53	13	14	7	123	187	190	207
Champlain College	-	1	16	14	24	7	14	6	8	15	46	28
College of St. Joseph the Provider***	1	-	15	4	10	9	1	1	1	1	12	11
Goddard College	10	2	33	11	69	5	6	2	80	4	155	11
Green Mountain College	3	-	34	4	41	7	21	2	111	55	173	64
Marlboro College	7	-	10	5	22	10	5	-	12	10	39	20
Middlebury College	70	-	47	13	130	5	86	20	381	30	597	55
Norwich University	30	1	67	11	94	4	20	-	169	2	283	6
Royalton College	3	-	8	7	8	10	8	2	3	3	19	15
St. Joseph's College	-	-	-	-	-	-	-	-	-	-	-	-
St. Michael's College	28	-	49	7	84	12	31	1	134	158	249	171
School for International Training	5	-	14	3	22	16	3	1	18	3	43	20
Trinity College	8	1	28	5	27	15	7	5	4	5	38	25
Vermont College	-	-	29	18	43	4	22	-	78	10	143	14
Windham College	37	-	22	1	59	4	19	1	49	175	127	180
TOTAL INDEPENDENT	190	5	397	130	690	124	258	50	1,201	659	2,024	831
TOTAL ALL INSTITUTIONS	460	101	648	186	1,363	340	489	56	2,189	939	3,909	1,329

*Degrees not noted **Estimated ***Not confirmed

PART I

DATA COLLECTION

ENROLLMENT

A prerequisite for long-range comprehensive planning for higher education is an analysis of actual and projected enrollments in order to determine what additional physical facilities will be needed to meet the expected increases in the number of students attending college. Data on the actual number of Vermont and out-of-state high school graduates who enrolled in Vermont institutions of higher education from 1960-1968, and the projections of the institutions of the enrollments for 1969-1980 have been collected.

Table 3 presents a breakdown of enrollments in the Fall of 1968 at each institution, and shows a total enrollment of 18,335 students. There is an extensive higher education enterprise in Vermont indicated by the fact that approximately 3% of Vermonters are involved in higher education either as students or staff members. When out-of-state students are included, higher education represents 5% of Vermont's total population of 429,500, as estimated in 1969 by the Vermont Department of Health.

Actual Enrollments -- 1960-1968

An analysis of the actual enrollments in Vermont institutions from 1960-1968 shown in Table 4 reveals some interesting patterns of growth. During that eight-year period, the enrollment at all public institutions has nearly doubled. At the University of Vermont, the undergraduate enrollment has increased by 57%, the enrollment for the first professional degree has increased by 23%, and the graduate enrollment has quadrupled.

At the three four-year state colleges the enrollment has increased by 86%. The enrollment at the technical college has more than doubled.

In the same eight-year period, the enrollment at the private institutions has increased by nearly 75%.

Projected Enrollments -- 1969-1980

When Table 4 (Actual Enrollments -- 1960-1968) and Table 5 (Projected Enrollments) are considered together, it appears that the enrollment at the public institutions will have expanded in the two decades from 1960 to 1980 nearly three and one-half times, the enrollment at the private institutions during that same period will have increased two and three-quarters times, and the total enrollment will have increased nearly three times.

Considering the more rapid growth of public higher education compared with private higher education across the nation, it is interesting to observe that the enrollment at the public institutions in Vermont is not projected to overtake the enrollment at the private institutions by any significant amount in the next decade. The ratio, therefore, of total enrollments between public and independent higher education in Vermont is projected as stable at the present time. Since the need and ability to expand enrollments at the state colleges will depend on unforeseen factors (particularly financial), arbitrary limits on their expansion should not be set.

Projected Demands for Post-Secondary Education

The demand for post-secondary education in Vermont can be projected on the basis of the number of students graduating from high school, the current and past patterns of high school graduates continuing education, the projected increases in the number and percentage of high school graduates continuing education, and the past and projected patterns of high school graduates continuing their education at Vermont institutions.

Table 6 shows the Actual (1960-1968) and Projected (1969-1980) Enrollments by Numbers and Percentages of Vermont High School Graduates continuing education in degree granting and non-degree granting institutions. Degree granting institutions include both four-year and two-year institutions. Non-degree programs in occupational education include such areas as beautician training, business education, computer training, practical nursing, X-ray and laboratory technology, and special training programs conducted by industry. Table 7 shows the methodology by which the number of high school graduates were projected in Table 6. The projected percentage of high school graduates for 1969-1980 is based on the best estimate from IED consultants utilizing the growth pattern in recent years.

The estimated percentages, however, should not be construed as a desirable proportion of high school graduates continuing education, especially when it is considered that, according to 1963 data, the percentage of Vermont high school graduates entering degree-granting institutions was only 35%, and that only the States of Maine, South Carolina, Georgia, and Alabama ranked at or below the percentage of Vermont.[1]

---

[1] A Fact Book on Higher Education, First Issue/1969, Enrollment Data, American Council on Education, p. 9051.

The years 1960-1968 show a marked change both in the number of high school graduates and in the percentage of graduates continuing their education. Between 1960 and 1968 the number of high school graduates increased by nearly 43%. In the same period, the percentage of graduates continuing education increased 6.7%. The total effect has been to increase the number of high school graduates continuing their education by approximately 67%.

The increase in number of high school graduates continuing their education has been absorbed mainly by the in-state public institutions, with the number of high school graduates entering them doubling during that period. During the same period, the number of students enrolling in four-year in-state independent institutions has remained relatively constant, while there has been an increase of approximately 55% of students going to out-of-state four-year institutions.

On the other hand, high school graduates enrolling in two-year degree granting institutions have increased by more than two and a half times for both in-state public and independent institutions, and doubled for out-of-state two-year degree granting institutions. At the same time, the number of graduates enrolling in occupational education non-degree programs has tripled.

Changing Patterns of Enrollment at Public Institutions

The increase in the number of high school graduates and in the percentage of graduates continuing education explains in part the growth of Vermont public institutions of higher education during the last decade. But the increase is only partially accounted for by the number of graduates continuing education. For example, in the years 1960-1963, only one out of two students enrolling in four-year institutions enrolled in an in-state public institution. Since 1964, the percentage enrolling in in-state public institutions has been increasing gradually. Table 6 indicates that, based on the projections, approximately 60% of high school graduates entering four-year institutions will enroll in in-state public institutions.

Of Vermont high school graduates enrolling at two-year degree granting institutions in 1968, only one out of four enrolled at an in-state public institution, indicating, perhaps, a lack of opportunity for associate degree programs. In the same year, more than 65% of the students enrolling in occupational education programs were enrolled at in-state private non-degree granting institutions.

Meeting the Demand for Higher Education

There is no doubt that the four-year in-state public institutions have responded to the projected demand for an increase in the number of students entering higher education within Vermont. As recently as 1964, it was assumed by the State Department of Education that "25% of the Vermont high school graduates will go on to four-year institutions of higher education."[1] It was further assumed that of the 25% going on to four-year institutions that 35% (or 9% of all Vermont high school graduates) would enroll at the University of Vermont. Assuming no attrition, the high school graduates of 1965, 1966, 1967, and 1968, would have provided 2,282 Vermonters in the undergraduate college at the University of Vermont in the fall of 1968. In fact, the total undergraduate enrollment of Vermonters at the University was 2,983 (see Table 3), more than 700 over the earlier assumption. In addition, the figure of 25% of high school graduates predicted to go on to four-year institutions of higher education had climbed to nearly 30% by the fall of 1968.

Tables 8 and 9 show the ratio of Vermont students enrolling for the first time to the total actual and projected enrollments by categories of institutions--public and private four-year institutions, and public and private two-year institutions. It appears that, whereas the pattern of ratios of Vermont high school graduates enrolling to the total number of students enrolled has been established as of 1968, there will be a sizeable increase in the number of Vermont students enrolling in public four-year institutions in the future.

Of equal interest to those responsible for planning in higher education is the percentage of in-state students in relation to the total enrollment in the public institutions. On the basis of information in Table 3, the percentage of Vermont students in public institutions (including undergraduate enrollments only) is 67%, in independent institutions 15%, and in all institutions 32.5%. A breakdown of the percentage of Vermont students in each of the public institutions is:

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[1] Bankus, John T., Dunham, Paul C., Rowell, Lyman C., and White, Robert K., Public Higher Educational Facilities in the State of Vermont, Vermont Resources Research Center, Report 11, p. II-3.

University of Vermont (undergraduates only)	64% Vermonters
Castleton State College	73% Vermonters
Johnson State College	75% Vermonters
Lyndon State College	63% Vermonters
Vermont Technical College	92% Vermonters

A dual concern in creating a comprehensive plan for higher education arises in the relationship of the percentage of in-state students to out-of-state students. First, from the educational point of view, it is desirable on each of the campuses to admit out-of-state students in order to bring together students with different perspectives and to provide a broader cross-section among the student body. Second, from the financial point of view, capital investment and operational costs must be taken into account. Decreasing, maintaining, or increasing the percentage of out-of-state students has to be weighed in terms of the benefits for the educational process and the limitations imposed by financial priorities.

TABLE 3

ACTUAL ENROLLMENTS IN VERMONT INSTITUTIONS
(FALL, 1968)

Institution	Undergraduate Enrollments									Other Enrollments				Grand Total
	Vermonters			Out-of-State			Total			Part-Time	1st Prof.	Grad.	Unclassified	
	Male	Female	Total	Male	Female	Total	Male	Female	Total					
University of Vermont and State Agricultural College	1,607	1,376	2,983	1,107	608	1,715	2,714	1,984	4,698	242	231	618	-	5,789
Castleton State College	367	353	720	111	150	261	478	503	981	107	-	-	-	1,088
Johnson State College	248	213	461	76	78	154	324	291	615	18	-	-	-	633
Lyndon State College	234	122	356	106	106	212	340	288	568	33	-	-	-	601
Vermont Technical College	402	4	406	35	-	35	437	4	441	-	-	-	-	441
TOTAL PUBLIC	2,858	2,068	4,926	1,435	942	2,377	4,293	3,010	7,303	400	231	618	-	8,552
Antioch-Putney Graduate School of Education	-	-	-	-	-	-	-	-	-	-	-	41(2)	120(3)	161
Bennington College	1	15	16	10	461	471	11	476	487	-	-	3	-	490
Champlain College	222	227	449	64	103	167	286	330	616	103	-	-	-	719
College of St. Joseph the Provider	1	37	38	-	87	87	1	124	125	5	-	-	-	130
Goddard College	24	35	59	318	402	720	342	437	779	104	-	-	-	883
Green Mountain College	-	16	16	-	686	686	-	702	702	-	-	-	-	702
Marlboro College	12	8	20	103	55	158	115	63	178	-	-	-	-	178
Middlebury College	40	33	73	855	630	1,485	895	663	1,558	2	-	10	-	1,570
Norwich University	107	-	107	1,090	-	1,090	1,197	-	1,197	-	-	17(1)	-	1,214
Royalton College	-	-	-	25	8	33	25	8	33	11	-	-	-	44
St. Joseph's College	76	46	122	27	34	61	103	80	183	2	-	-	-	185
St. Michael's College	152	-	152	1,030	-	1,030	1,182	-	1,182	106	-	233	-	1,521
School for International Training	2	3	5	80	67	147	82	70	152	36	-	14	-	202
Trinity College	-	170	170	-	265	265	-	435	435	15	-	-	-	450
Vermont College	-	64	64	-	446	446	-	-	510	9	-	-	-	519
Windham College	40	18	58	517	216	733	557	234	791	24	-	-	-	815
TOTAL INDEPENDENT	677	672	1,349	4,119	3,460	7,579	4,796	4,132	8,928	417	0	318	120	9,783
TOTAL STATE ENROLLMENT	3,535	2,740	6,275	5,554	4,402	9,956	9,089	7,142	16,231	817	231	936	120	18,335

(1) Extension Courses (2) On Vermont Campus (3) In Total Program (All Graduate Students)

TABLE 4

ACTUAL (1960-68) ENROLLMENTS IN VERMONT INSTITUTIONS

Institution	1960	1961	1962	1963	1964	1965	1966	1967	1968
University of Vermont and State Agricultural College									
Undergraduate	2,992	3,213	3,280	3,468	3,632	3,701	4,043	4,639	4,698
First Professional	188	192	193	186	183	190	194	203	231
Graduate	154	174	216	251	242	307	405	513	618
Part-time	87	93	113	112	119	123	147	188	242
Total	3,421	3,672	3,802	4,017	4,176	4,321	4,789	5,543	5,789
Castleton State College	375	462	525	560	626	747	846	947	981
Johnson State College	187	215	260	307	378	464	496	540	615
Lyndon State College	289	279	241	252	305	372	438	508	568
Vermont Technical College	-	-	211	250	262	302	348	437	441
TOTAL PUBLIC INSTITUTION	4,272	4,626	5,039	5,386	5,747	6,206	6,917	7,975	8,394
Antioch-Putney Graduate School of Education	7	12	11	12	10	32	56	17	41
Bennington College	356	367	373	369	388	382	415	416	490
Champlain College	279	360	372	407	523	585	600	615	616
College of St. Joseph the Provider	-	20	33	30	59	69	76	94	125
Goddard College	155	188	213	284	358	533	614	699	779
Green Mountain College	505	519	541	603	620	635	636	683	702
Marlboro College	66	87	96	206	128	240	167	178	178
Middlebury College	1,297	1,277	1,319	1,343	1,370	1,414	1,396	1,395	1,558
Norwich University	958	1,048	1,146	1,159	1,214	1,221	1,276	1,269	1,197
Royalton College									33
St. Joseph's College	-	-	-	-	126	186	190	192	183
St. Michael's College	873	912	991	1,020	1,062	1,107	1,120	1,360	1,415
School for International Training					65	79	92	107	152
Trinity College*	253	309	369	397	397	437	446	432	435
Vermont College	343	395	507	505	505	530	531	521	510
Windham College	179	180	215	171	258	392	537	731	791
TOTAL INDEPENDENT	5,271	5,674	6,183	6,506	7,083	7,842	8,152	8,709	9,205
TOTAL STATE ENROLLMENT	9,543	10,300	11,222	11,892	12,830	14,048	15,069	16,684	17,599

TABLE 5

PROJECTED (1969-80) ENROLLMENTS IN VERMONT INSTITUTIONS

Institution	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
University of Vermont and State Agricultural College	6,350	6,850	7,300	7,750	8,200	8,600	9,000	9,400	9,800	10,200	10,600	11,000
Castleton State College	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Johnson State College	690	770	845	870	885	895	895	895	895	895	895	895
Lyndon State College	635	700	740	780	825	870	900	900	900	900	900	900
Vermont Technical College	550	625	660	695	730	760	800	835	(870)	(905)	(940)	(975)
TOTAL PUBLIC INSTITUTION	9,225	9,945	10,545	11,095	11,640	12,125	12,595	13,030	13,465	13,900	14,335	14,770
Antioch-Putney Graduate School of Education	42	42	42	42	42	44	44	44	44	46	46	46
Bennington College	540	590	600	600	600	600	600	600	600	600	600	600
Champlain College	625	625	625	625	625	625	625	625	625	625	625	625
College of St. Joseph the Provider	148	165	183	200	220	240	260	280	300	(320)	(340)	(360)
Goddard College	850	900	950	1,000	1,050	1,100	1,150	1,200	1,250	1,300	1,400	1,500
Green Mountain College	704	704	704	704	704	704	704	704	704	704	704	704
Marlboro College	195	205	215	225	(235)	(245)	(265)	(265)	(275)	(285)	(295)	(303)
Middlebury College	1,626	1,694	1,762	1,830	1,854	1,878	1,902	1,926	1,950	(1,950)	(1,990)	(2,000)
Norwich University	1,200	1,200	1,200	1,200	1,200	1,300	1,400	1,500	1,500	1,500	1,500	1,500
Royalton College	80	100	150	200	400	800	(800)	(800)	(800)	(800)	(800)	(800)
St. Joseph's College	185	200	200	225	225	225	225	225	225	225	225	225
St. Michael's College	1,450	1,480	1,500	1,550	1,600	1,650	1,700	1,750	1,805	1,870	1,935	2,000
School for International Training	174	215	280	320	360	410	480	560	660	660	660	660
Trinity College	452	462	472	482	492	502	512	522	532	542	552	562
Vermont College	534	602	618	635	658	681	704	727	750	(770)	(785)	(800)
Windham College	885	890	895	900	904	908	912	916	920	(924)	(928)	(932)
TOTAL INDEPENDENT	9,690	10,074	10,196	10,738	10,969	11,912	12,243	12,644	12,940	13,141	13,385	13,619
TOTAL STATE ENROLLMENT	18,915	20,019	20,741	21,833	22,609	24,037	24,868	25,674	26,405	27,041	27,720	28,389

*Semi-official projections discussed with appropriate college official are in parentheses. All others are projections made by the institution.

TABLE 6

ACTUAL (1960-68) AND PROJECTED (1969-80) ENROLLMENTS BY NUMBERS AND PERCENTAGES OF VERMONT PUBLIC HIGH SCHOOL GRADUATES CONTINUING EDUCATION

	Graduates	High School Graduates Continuing Education in Degree & Non-Degree Institutions		High School Graduates Enrolled in Four-Year Institutions								High School Graduates Enrolled in Two-Year Institutions								High School Graduates Enrolled in Occupational Education Non-Degree Programs					
				In-State Public		In-State Private		Out-of-State		Total		In-State Public		In-State Private		Out-of-State		Total		In-State		Out-of-State		Total	
Year	No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1960	4,450	2,026	45.5	526	11.6	158	3.6	456	10.2	1,140	25.6	73	1.6	114	2.6	144	3.2	331	7.4	104	N/A	131	N/A	235	N/A
1961	4,772	2,236	46.9	559	11.9	128	2.7	519	10.9	1,206	25.3	92	1.9	141	3.0	116	2.5	349	7.4	101	N/A	193	N/A	294	N/A
1962	4,623	2,164	46.8	532	11.4	141	3.0	480	10.4	1,153	24.9	78	1.7	148	3.2	145	3.1	371	8.0	88	N/A	143	N/A	231	N/A
1963	4,616	2,200	47.7	608	13.2	104	2.3	538	11.7	1,250	27.1	86	1.8	170	3.7	139	3.0	394	8.5	260	5.5	190	4.2	450	9.7
1964	5,261	2,744	52.2	778	14.8	119	2.3	573	10.9	1,470	27.9	102	1.9	235	4.5	194	3.7	531	10.1	296	5.6	295	5.6	591	11.2
1965	6,256	3,202	51.2	989	16.0	166	2.7	675	10.8	1,830	29.3	122	2.0	251	4.0	203	3.2	576	9.2	313	5.0	292	4.7	605	9.7
1966	6,258	3,078	49.2	955	15.0	120	1.9	690	11.0	1,765	28.2	145	2.3	264	4.2	271	4.3	680	10.8	291	4.6	216	3.5	507	8.1
1967	6,380	3,292	51.6	1,089	17.1	138	2.2	700	11.0	1,927	30.2	183	2.9	251	3.9	292	4.6	726	11.4	408	6.4	231	3.6	639	10.0
1968	6,469	3,396	52.2	1,053	16.3	160	2.5	709	11.0	1,922	29.8	188	2.9	290	4.5	288	4.4	766	11.8	462	7.1	246	3.8	708	10.9
1969	6,563	3,492	53.2	1,197	18.3	172	2.6	626	9.5	1,995	30.4	233	3.6	276	4.2	272	4.1	781	11.9	466	7.1	250	3.8	716	10.9
1970	6,837	3,692	54.0	1,295	18.9	179	2.6	645	9.5	2,119	31.0	266	3.9	288	4.2	266	3.9	820	12.0	494	7.2	259	3.8	753	11.0
1971	7,128	3,906	54.8	1,384	19.4	181	2.6	687	9.6	2,252	31.6	281	3.9	290	4.1	284	4.0	855	12.0	521	7.3	278	3.9	799	11.2
1972	7,106	3,944	55.5	1,466	20.6	192	2.7	630	8.9	2,288	32.2	295	4.2	296	4.2	269	3.7	860	12.1	519	7.3	277	3.9	796	11.2
1973	7,629	4,295	56.3	1,549	20.3	196	2.6	757	9.9	2,502	32.8	310	4.1	299	3.9	314	4.1	923	12.1	565	7.4	305	4.0	870	11.4
1974	7,581	4,321	57.0	1,625	21.4	218	2.9	689	9.1	2,532	33.4	323	4.3	302	4.0	300	3.9	925	12.2	561	7.4	303	4.0	864	11.4
1975	7,852	4,531	57.7	1,698	21.6	225	2.9	744	9.5	2,670	34.0	340	4.3	305	3.9	313	4.0	958	12.2	581	7.5	322	4.1	903	11.6
1976	7,854	4,595	58.5	1,768	22.5	233	3.0	716	9.1	2,717	34.6	355	4.5	308	3.9	303	3.9	966	12.3	590	7.6	322	4.1	912	11.7
1977	8,008	4,741	59.2	1,839	23.0	239	3.0	741	9.2	2,819	35.2	370	4.6	311	3.9	304	3.8	985	12.3	609	7.6	328	4.1	937	11.7
1978	8,385	5,031	60.0	1,910	22.8	243	2.9	849	10.1	3,002	35.8	385	4.6	314	3.7	341	4.1	1,040	12.4	637	7.6	352	4.2	989	11.8
1979	8,575	5,205	60.7	1,982	23.1	249	2.9	890	10.4	3,121	36.4	400	4.7	316	3.7	347	4.0	1,063	12.4	661	7.7	360	4.2	1,021	11.9
1980	8,697	5,349	61.5	2,055	23.6	253	2.9	910	10.5	3,218	37.0	414	4.8	318	3.7	355	4.0	1,087	12.5	679	7.8	365	4.2	1,044	12.0

TABLE 7

PROJECTION METHODOLOGY TO PREDICT NUMBER OF HIGH SCHOOL GRADUATES

Year	15-19 Yr. Age Group (1)	Grades 8-12 Enrollment (2)	Ratio 15-19 Yrs./ 8-12 Enrollment	High School Graduates (3)	8-12 Enrollment/ High School Graduates
1960	31,717	30,741	96.9	4,450	14.5
1961	32,900	31,931	97.1	4,772	14.9
1962	34,650	33,608	96.9	4,623	13.8
1963	36,400	35,629	97.8	4,616	13.6
1964	37,600	36,418	96.9	5,261	14.4
1965	38,000	36,873	97.0	6,256	17.0
1966	39,050	37,853	96.9	6,258	16.5
1967	39,500	38,606	97.7	6,380	16.5
1968	40,300	39,961	99.2	6,469	16.2
1969	(42,365)	41,131	(97.0)	6,563	16.0
1970	43,165	42,288	97.9	6,837	16.2
1971	(44,463)	43,129	(97.0)	7,128	16.5
1972	45,530	44,137	96.9	7,106	16.1
1973	(46,374)	45,023	(97.0)	7,629	16.9
1974	(47,560)	46,175	(97.0)	7,581	17.0
1975	(48,577)	47,162	(97.0)	7,852	16.6
1976				7,854	
1977				8,008	
1978				8,385	
1979				8,575	
1980				8,697	

Methodology

(1) 1960 - U. S. Census
1961-68 - Vermont Health Department Estimates
1970 & 72 - Vermont Development Department Projections
1969, 1971, 1973, 1974, 1975 - Trend Line Projection

(2) 1960-68 - Vermont Education Department Statistics
1968-75 - Projected by a "Rolling Attrition" of enrollments, by grade

(3) 1960-68 - Vermont Education Department Statistics
1968-75 - Projected as a percentage of 8-12 grade enrollments
1976-80 - Projected by retention of projected grade enrollments

TABLE 8

ACTUAL ENROLLMENTS BY INSTITUTIONAL CATEGORY USING OFFICIAL INSTITUTION FIGURES

	1960	1961	1962	1963	1964	1965	1966	1967	1968
Public 4 Year Institution									
Enrollment	4,272	4,626	4,818	5,136	5,485	5,904	6,602	7,279	7,963
Vermont High School Graduates Enrolling	526	559	532	608	778	989	955	1,089	1,053
Ratio	12.31	12.08	11.04	11.83	14.18	16.75	14.46	14.96	13.22
Private 4 Year Institution									
Enrollment	4,137	4,388	4,752	4,979	5,299	5,874	6,139	6,671	7,153
Vermont High School Graduates Enrolling	158	128	141	104	119	166	120	138	160
Ratio	3.82	2.92	2.96	2.09	2.35	2.83	1.95	2.07	2.23
Public 2 Year Institution									
Enrollment	-	-	211	250	262	302	348	437	441
Vermont High School Graduates Enrolling			78	86	102	122	145	183	188
Ratio			36.96	34.40	38.93	40.39	41.66	41.87	42.63
Private 2 Year Institution									
Enrollment	1,127	1,274	1,420	1,515	1,774	1,936	1,957	2,011	2,013
Vermont High School Graduates Enrolling	114	141	148	170	235	251	264	251	290
Ratio	10.11	11.06	10.42	11.22	13.24	12.96	13.94	12.48	14.40

TABLE 9

PROJECTED ENROLLMENTS BY INSTITUTIONAL CATEGORY USING OFFICIAL INSTITUTION PROJECTIONS

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Public 4 Year Institution												
Projected Enrollment	8,675	9,320	9,885	10,400	10,910	11,365	11,795	12,195	12,595	12,995	13,395	13,795
Vermont High School Graduates Enrolling	1,197	1,295	1,384	1,466	1,549	1,625	1,698	1,768	1,839	1,910	1,982	2,055
Ratio	13.80	13.90	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90
Private 4-Year Institution												
Projected Enrollment	7,642	7,943	8,049	8,549	8,734	9,677	9,992	10,363	10,636	10,817	11,046	11,265
Vermont High School Graduates Enrolling	172	179	181	192	196	218	225	233	239	243	249	253
Ratio	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
Public 2-Year Institution												
Projected Enrollment	550	625	660	695	730	760	800	835	870	905	940	975
Vermont High School Graduates Enrolling	233	266	281	295	310	323	340	355	370	385	400	414
Ratio	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50	42.50
Private 2-Year Institution												
Projected Enrollment	2,048	2,131	2,147	2,189	2,212	2,235	2,258	2,281	2,304	2,324	2,339	2,354
Vermont High School Graduates Enrolling	276	288	290	296	299	302	305	308	311	314	316	318
Ratio	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50

Figures beyond 1977 are extensions of institutional projections.

PHYSICAL FACILITIES

One of the primary responsibilities of the Vermont Commission on Higher Education Facilities was to conduct a survey of the physical facilities and their utilization by function of higher educational institutions in Vermont. In order to collect information which would be consistent among institutions, a manual, entitled Facilities Inventory Procedures for the State of Vermont, was prepared based on guidelines developed by the U. S. Department of Health, Education and Welfare in its publication, Facilities Classifications and Inventory Procedures for Institutions and State Agencies of August, 1967. A copy of the manual was distributed to appropriate officials on each campus for reference.

Procedures of Data Collection

The inventory was made at each institution from available files and blueprints of buildings. In cases where data were not readily available either because of the age or renovation of a building, direct measurements were made.

Upon completion of the inventory at each campus, the data were key-punched onto Electric Data Processing (EDP) cards and validated by computer print-outs. In most cases, a copy of this print-out was returned to the institution for review and correction before final statistical tabulations were made.

The complete file of EDP cards and copies of the institutional print-outs are on file with the Commission. If any institution wishes, it can easily have the Commission's card file reproduced to serve as a basis for an internal inventory procedure on its campus.

A computer program, written in IBM's Report Program Generator Language, applicable to an IBM 30/44 system and probably adaptable to other systems with a minimum of revision, is available from the Commission upon request.

The data were keypunched into a three-card type format, as follows:

Card 1. - BUILDING DATA CARD

(a) CARD SEQUENCE NUMBER

This number identifies the card being processed and is for EDP purposes only.

(b) INSTITUTIONAL CODING

A two-digit code established by the Commission to identify the institution.

(c) BUILDING CODE NUMBER

A unique number was assigned to every building, using either a previously established institutional code or one established by the Commission.

(d) BUILDING NAME

The common alphabetic-numeric name for the building, abbreviated to ten letters where necessary.

(e) LOCATION CODE

A code, established by the U. S. Office of Education, was used identifying the location of the building in relationship to the main campus of the institution.

(f) INITIAL OCCUPANCY

The initial date of occupancy of the building by year; the final two numbers of years after 1939, and a code identifying decades previous to 1939.

(g) CONDITION OF BUILDING CODE

The condition of each building was rated by an appropriate institutional official.

(h) DATE OF LAST RENOVATION

If the building has undergone major renovation since its acquisition, the year of this renewal was included to identify better the condition and useful life of the building.

(i) OWNERSHIP CODE

A code identifying the basis on which the building is available for use by the institution.

(j) GROSS SQUARE FOOTAGE

The total gross square footage of a building was calculated as the sum of the areas at each floor level included within the principal outside faces of the exterior walls.

(k) NET ASSIGNABLE AREA

Provision was made to include the assignable square footage of a building on the basis of the total assignable square footages for each room. These figures were not entered, but are available from other sources for inclusion by the institution if desired.

(l) NUMBER OF FLOORS OR LEVELS

(m) TYPE OF CONSTRUCTION

(n) FALLOUT SHELTER CODE

A code indicating whether the building has been included in the National Fallout Shelter Survey.

(o) DEGREE OF GRADUATE PROGRAM

An estimate of the total number of undergraduate student hours usage of the building as compared to the graduate student hour usage.

(p) ORIGINAL CAPITAL INVESTMENT

When provided by the institution, the cost (to the nearest thousands of dollars) of the building, including additions and capitalized renovations.

(q) ESTIMATED REPLACEMENT COST

When provided by the institution, the estimated cost of replacing the structure at today's costs.

(r) AVAILABILITY OF SOURCE OF FUNDS CODE

A code indicating whether or not succeeding cards will identify the various sources of funding for the building.

(s) INVENTORY DATE

The last two digits of the year in which the inventory was taken, indicating the currentness of the data.

(t) OPTIONAL INFORMATION

Twenty-six positions for use by the institution at their option.

Card 2. - SOURCE OF FUNDS CARD

This card was used only for buildings for which information on the Source of Funding for construction [under (r) above] was provided. The codes referred to consist of twenty-four major areas or sources identified by the U. S. Office of Education.

(a) CARD SEQUENCE NUMBER

(b) INSTITUTIONAL CODE

(c) BUILDING CODE NUMBER

(d) SOURCE OF FUNDS BY CATEGORY

Code number of the source of funds identified by category of the lowest numeric value code number applicable, with the dollar amount (rounded to the nearest one thousand) of the category identified by the code number.

(e) INVENTORY DATE

Card 3. - ROOM INVENTORY CARD

This card was prepared for every assignable room within the college complex. "Assignable" is broadly defined as space available for all institutional purposes excluding space devoted solely to mechanical (boilers, elevator, toilet and shower rooms, etc.), custodial (janitor closets, etc.), circulation (entryways, vestibules, hallways, stairways, etc.) and construction (crawlspaces, sloping attics, etc, which are within the building but unusable for any assignable purpose because of access, height, etc.)

(a) CARD SEQUENCE NUMBER

(b) INSTITUTIONAL CODE

(c) BUILDING CODE NUMBER

(d) BUILDING NAME

(e) LEVEL

This identifies the level or floor on which the room is located.

(f) ROOM NUMBER

A unique number to identify the room. Generally the number used was in common usage at the institution, but in some cases had to be assigned after consultation with an appropriate official, and may reflect either the architectural plan number or an arbitrarily assigned number.

(g) SQUARE FOOTAGE

The total square footage of the room, measured to the nearest square foot.

(h) STANDARD CLASSIFICATION ASSIGNMENT CODE

The U. S. Office of Education "Standard Classification of Subject Field and Organizational Unit" code that best identifies the assignment or usage of the room under normal academic year usage.

(i) DEPARTMENTAL ASSIGNMENT CODE

A unique three digit code established for each institution identifying the administrative or academic divisions of the institution, and the assignment or usage of the room under normal academic year usage.

(j) TYPE OF ROOM BY CATEGORY CODE

The U. S. Office of Education code identifying the type of room.

(k) ROOM FUNCTION CODE

A code identifying the functional or program categories identified by the Office of Education describing the functional use of the room.

(l) STATIONS

The actual number of stations (seat, work stations, beds, carrels, etc.) for certain specified and applicable types of rooms (classrooms, offices, dormitories, etc.).

(m) ASSIGNABLE SPACE

Some institutions have existing space inventory systems that include space that would be defined as "unassignable" in this inventory. This code identified whether or not the space should be included within this survey as "assignable" space.

(n) PROPORTION

Some rooms have multi-purposes or multi-assignments. Provision was made to prorate the square footage of such rooms among various areas.

(o) DESCRIPTION

Where information was available, and the data applicable, a general description or identification of the room was possible in order to amplify the coding for the room in question. This might include an occupant name, or the common generic name of the room.

(p) INVENTORY DATE

Updating of Physical Facilities Information

Since the entire system is built on a card-for-card system, any changes or updating can be handled by a simple repunching of the appropriate card. The Coordinating Council, if established as recommended, should make arrangements for updating to be done annually, perhaps in conjunction with the filing of the Higher Education General Information Survey (HEGIS) reports.

Assignable Square Footage by Functions

Table 10 shows a breakdown of total assignable square footage for each campus according to the following functions:

(1) Number of square feet and the percentage of total square feet allocated to instruction (any activity the primary objective of which is the transmission or dissemination of knowledge to college students on a group or individual basis, including instructional laboratories and that portion of offices occupied by faculty members whose primary responsibility is teaching, and that portion of graduate instruction involving organized classes for which credit is awarded.)

(2) Number of square feet and the percentage of total square feet allocated to research (any activity the primary objective of which is the discovery or application of knowledge, including the research activities engaged in by students as a part of their graduate training).

(3) Number of square feet and the percentage of total square feet allocated to public service (any activity the primary objective of which is to make available to the general public the benefits of the instructional and/or research activities of an institution of higher education, including activities of a cultural nature as well as those frequently described as "extension" or "adult and continuing education").

(4) Number of square feet and the percentage of total square feet allocated to libraries (the orderly collection, storage, and retreival of knowledge).

(5) Number of square feet and the percentage of total square feet allocated to general administration and institutional services (any activity the primary objective of which is the orderly planning and operation of the instruction, research, and/or public service functions of an institution for academic affairs,fiscal affairs, personnel student affairs, public relations, development, etc.).

(6) Number of square feet and the percentage of total square feet allocated to auxiliary services (including food facilities open to the student body and/or public at large, health facilities, lounge facilities, merchandising facilities such as bookstores and post offices, recreation facilities such as bookstores and post offices, recreation facilities for use by students, staff and/or the public, and residential facilities including dining areas).

(7) Number of square feet and the percentage of total square feet allocated to non-institutional agencies (public or private agencies not directly related to the regular academic program).

(8) Number of square feet and the percentage of total square feet designated as unassigned (inactive space which is available for assignment to one of the above functions, areas which are temporarily out of use because they are under alteration or conversion, and areas in new buildings or additions to existing buildings which were unfinished at the time of the inventory).

Utilization of Facilities

In summarizing space allocated to various functions, certain interesting facts or roles appear. The data in Table 10 may be indicative of the role or roles each institution plays in the total picture of higher education in Vermont. For example, the University of Vermont, with its graduate departments and professional schools, has considerably more space allocated to research than does any other public or independent institution. It also has by far the most space allocated to public service. Vermont Technical College has the most space allocated to instruction. Among the independent institutions, six colleges allocated more than 25% of assignable space to instruction: Marlboro College, Norwich University, Trinity College, St. Joseph's College, Vermont College, and Windham College.

Table 11 shows the number of classrooms and their total square footage along with the total number of stations, the average square footage per station, the ratio of students per station, and a breakdown of number of classrooms by capacity of student stations. This table, therefore, provides an index of "crowdedness" in classrooms, ranging from 7.2 square feet per station at Champlain College to 23.7 square feet per station at Marlboro College.

In addition, the table may serve as a guide to the adequacy and efficiency of use of classroom space. When the number of stations, the number of students, and the number of hours the classrooms are available for use are considered together, the degree of utilization can be determined. For example, the ratio of students to student stations in the public institutions ranges from 0.70 at Vermont Technical College to 1.46 at Castleton State College. Among the independent institutions there is a spread from a low of 0.09 at Royalton College to a high of 6.31 at Goddard College, the latter indicating a very high degree of utilization.

Finally, the number of classrooms and amount of space per classroom should be considered in relation to what an institution determines as optimal class size and how the institution can most effectively utilize classrooms in the future.

Table 12 provides information for laboratories similar to that provided in Table 11 for classrooms. It is difficult to make any meaningful comparisons from this table because the appropriate square footage per student station is determined in large part by the requirements of the laboratory, the number of students enrolled in laboratory courses, the amount of laboratory space devoted to research projects, and the institution's requirements for laboratory sciences as part of the minimal degree requirements.

Table 13 shows the number of buildings and the total amount of assignable square feet per student, based on the total enrollment (full- and part-time) at each of the institutions. The range is from 179.5 square feet per student at Castleton State College to 408.6 square feet per student at Vermont Technical College. The area of space allocated to instruction at the public institutions ranges from 27.0 square feet per student at Castleton State College to 161.1 square feet per student at Vermont Technical College. In the independent institutions the range of square feet per student based on total assignable space is from 83.0 at Champlain College to 1,127.6 at Royalton College. The range of instructional space per student is from 11.6 at Champlain College to 277.1 at Royalton College, with the average and median square feet per student approximately the same.

These figures indicate in part the nature and purpose of the academic programs pursued at each of these institutions. They may also show the efficiency of operation, or they may indicate the need for expanding the enrollment or for providing additional space for instruction.

Table 13 also shows the number of offices and the ratio of offices to the number of faculty and administrative staff members including both full-time and part-time positions, at each institution as reported in Table 2. It appears that eight of the twenty-one institutions reporting have an office for each member of the faculty and administration and are prepared for modest increases in office space for such staff members. On the other hand, six institutions do not provide an office for one-quarter of the staff. With the trend toward more independent and individualized instruction, such institutions may have to make provisions for additional space for faculty offices.

Table 13 also shows the number of square feet allocated to auxiliary services areas, the number of bedrooms and number of beds provided by the institution, and the ratio of beds to number of students enrolled.

The ratio of beds to number of students is indicative of the residential character of the institution or of the commuter availability of the community in which the institution is located. Furthermore, it indicates whether an institution may be overbuilding in dormitories in relation to its student enrollment. Inasmuch as such facilities are usually financed through student fees, each institution should exercise due caution when plans are made for building additional dormitories.

At the same time, it would be wise to take into consideration student preferences for living quarters. This is especially true with regard to a lessening of the concept of a college or university acting _in loco parentis_. Colleges would be well advised to consider how existing dormitory structures might be renovated for other use if the colleges continue to relinquish their _in loco parentis_ function.

TABLE 10

SUMMARY OF SPACE INVENTORY IN VERMONT INSTITUTIONS BY FUNCTIONS - TOTAL CAMPUS
(SEPTEMBER, 1968)

	Assignable Square Footage on Campus	Instruction		Research		Public Service		Library		Administration		Auxiliary Service		Non-institutional		Unassigned	
		Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%	Sq. Ft.	%
University of Vermont and State Agricultural College	1,749,245	323,458	18.5	250,568	14.5	66,397	3.8	95,356	5.5	295,925	16.9	652,894	37.3	14,686	0.8	49,961	2.9
Castleton State College	195,339	29,421	15.0	260	0.2	-	0.0	14,096	7.2	37,847	19.4	109,659	56.1	-	0.0	4,056	2.1
Johnson State College	157,875	24,345	15.4	68	0.1	-	0.0	10,059	6.4	16,469	10.4	93,402	59.1	-	0.0	13,532	8.6
Lyndon State College	179,699	21,897	12.2	120	0.1	-	0.0	8,512	4.7	14,462	8.0	72,222	40.2	1,581	0.9	60,905	33.9
Vermont Technical College	180,197	71,039	39.4	-	0.0	-	0.0	9,277	5.1	25,169	14.0	74,812	41.5	-	0.0	-	0.0
TOTAL PUBLIC	2,462,355	470,160	19.1	251,016	10.2	66,397	2.7	137,300	5.6	389,772	15.8	1,002,989	40.7	16,267	0.7	128,454	5.2
Antioch-Putney Graduate School of Education	10,940	604	5.5	-	0.0	-	0.0	648	5.9	1,124	10.3	8,564	78.3	-	0.0	-	0.0
Bennington College	233,406	42,823	18.3	205	0.1	-	0.0	12,910	5.5	24,719	10.6	151,407	64.9	-	0.0	1,342	0.6
Champlain College	59,706	8,313	13.9	-	0.0	-	0.0	1,050	1.8	4,712	7.9	44,911	75.2	-	0.0	720	1.2
College of St. Joseph the Provider	71,554	13,839	19.4	-	0.0	-	0.0	2,413	3.4	10,718	14.9	22,958	32.1	5,758	8.0	15,868	22.2
Goddard College	187,479	32,619	17.4	-	0.0	1,401	0.8	20,651	11.0	11,464	6.1	120,999	64.5	345	0.2	-	0.0
Green Mountain College	281,034	51,258	18.2	-	0.0	-	0.0	7,616	2.7	53,147	18.9	149,990	53.4	465	0.2	18,558	6.6
Marlboro College	70,669	20,698	29.3	515	0.7	-	0.0	7,135	10.1	5,479	7.8	33,525	47.4	3,317	4.7	-	0.0
Middlebury College	846,273	149,561	17.7	2,345	0.3	-	0.0	42,930	5.1	108,946	12.9	383,456	45.3	46,160	5.4	112,875	13.3
Norwich University	504,089	138,427	27.5	2,674	0.5	-	0.0	24,972	4.9	125,046	24.8	212,457	42.1	813	0.2	-	0.0
Royalton College	49,616	11,971	24.2	-	-	-	-	1,710	3.2	12,559	25.4	22,836	46.1	-	-	540	1.1
St. Joseph's College	27,711	9,702	35.0	-	0.0	-	0.0	1,152	4.2	716	2.6	16,141	53.2	-	0.0	-	0.0
St. Michael's College	511,426	73,663	14.4	-	0.0	-	0.0	33,354	6.5	112,450	22.0	240,293	47.0	11,078	2.2	40,588	7.9
School for International Training	52,317	9,655	18.5	-	0.0	-	0.0	3,598	6.9	8,710	16.6	28,990	55.4	1,008	1.9	356	0.7
Trinity College	102,404	32,039	31.3	878	0.9	-	-	5,271	5.1	11,563	11.3	52,653	51.4	-	-	-	-
Vermont College	165,300	55,091	33.3	-	0.0	-	0.0	4,936	3.0	26,208	15.9	79,065	47.8	-	0.0	-	0.0
Windham College	184,015	48,419	25.9	2,780	1.5	-	0.0	13,530	7.2	30,463	16.3	91,283	48.8	540	0.3	-	0.0
TOTAL INDEPENDENT	3,361,239	698,682	20.8	9,397	0.3	1,401	0.0	183,876	5.5	548,024	16.3	1,659,528	49.4	69,484	2.0	190,847	5.7
TOTAL ALL INSTITUTIONS	5,823,594	1168,842	20.1	260,413	4.5	67,798	1.1	321,176	5.5	937,796	16.1	2,662,517	45.7	85,751	1.5	319,301	5.5

TABLE 11

SPACE INVENTORY - CLASSROOMS

	Number	Total Square Footage	Total Number of Stations	Average Station Square Footage	Ratio of Students per Station	Capacity					
						1-9	10-19	20-39	40-64	65-99	100+
University of Vermont and State Agricultural College	106	69,105	4,751	14.5	1.22	7	18	36	31	7	7
Castleton State College	17	12,166	744	16.4	1.46	-	-	7	9	-	1
Johnson State College	11	8,397	645	13.0	0.98	-	-	1	7	1	2
Lyndon State College	18	8,561	558	15.3	1.08	3	2	8	4	-	1
Vermont Technical College	13	11,100	629	17.6	0.70	-	-	-	13	-	-
TOTAL PUBLIC	165	109,329	7,327	14.9	1.17	10	20	52	64	8	11
Antioch-Putney Graduate School of Education	2	416	20	20.8	2.05	1	1	-	-	-	-
Bennington College	11	3,979	286	13.9	1.71	-	5	4	1	1	-
Champlain College	14	3,117	433	7.2	1.66	-	2	9	3	-	-
College of St. Joseph the Provider	9	6,010	372	16.2	0.35	-	1	2	6	-	-
Goddard College	4*	1,712	140	12.2	6.31	-	-	2	2	-	-
Green Mountain College	27	15,646	987	15.9	0.71	-	4	11	10	2	-
Marlboro College	11	3,791	160	23.7	1.11	2	7	2	-	-	-
Middlebury College	43	24,608	1,581	15.6	1.01	1	12	12	14	1	3
Norwich University	53	38,931	2,238	17.4	0.54	-	4	28	17	2	2
Royalton College	13	6,480	474	13.7	0.09	-	1	6	6	-	-
St. Joseph's College	4	2,720	130	20.9	1.42	-	-	4	-	-	-
St. Michael's College	45	28,412	1,413	20.1	1.08	4	17	7	13	1	3
School for International Training	14	3,777	212	17.8	0.95	-	12	2	-	-	-
Trinity College	15	13,835	778	17.8	0.58	-	-	14	-	1	-
Vermont College	19	13,775	725	19.0	0.72	1	2	7	7	2	-
Windham College	18	12,842	988	13.0	0.82	-	-	8	7	1	2
TOTAL INDEPENDENT	302	180,051	10,937	16.5	0.88	9	68	104	100	10	11
TOTAL ALL INSTITUTIONS	467	289,380	18,264	15.8	1.00	19	88	156	164	18	22

*Because of type of program, most work is informal and tutorial.

TABLE 12

SPACE INVENTORY - LABORATORIES

	Number	Total Square Footage	Total Number of Stations	Average Station Square Footage	Ratio of Students per Station	1-9	10-19	20-39	40-64	65-99	100+
University of Vermont and State Agricultural College	542	204,965	2,925	70.1	1.98	425	55	54	8	-	-
Castleton State College	17	8,509	301	28.3	3.61	6	4	6	1	-	-
Johnson State College	17	5,805	146	39.8	4.34	11	2	4	-	-	-
Lyndon State College	10	6,408	193	33.2	3.11	1	4	4	1	-	-
Vermont Technical College	14	19,992	320	62.5	1.38	1	2	8	3	-	-
TOTAL PUBLIC	600	245,679	3,885	63.2	2.20	444	67	76	13	-	-
Antioch-Putney Graduate School of Education	-	-	-	-	-	-	-	-	-	-	-
Bennington College	41	22,930	436	52.6	1.12	20	14	7	-	-	-
Champlain College	3	1,098	75	14.6	1.10	-	1	2	-	-	-
College of St. Joseph the Provider	3	3,328	88	37.8	1.48	-	-	3	-	-	-
Goddard College	35	12,146	251*	48.4	3.52	23	9	3	-	-	-
Green Mountain College	23	15,112	423	35.7	1.66	7	5	10	1	-	-
Marlboro College	20	6,959	126	55.2	1.41	13	6	1	-	-	-
Middlebury College	57	29,226	682	42.6	2.33	30	16	8	1	2	-
Norwich University	44	38,978	712	54.7	1.71	18	11	13	2	-	-
Royalton College	5	2,380	51	46.7	.65	2	3	-	-	-	-
St. Joseph's College	4	3,600	108	33.3	1.71	-	-	4	-	-	-
St. Michael's College	20	14,608	316	46.2	4.81	11	1	6	2	-	-
School for International Training	2	1,311	44	29.8	4.59	-	-	2	-	-	-
Trinity College	16	9,423	297	31.7	1.52	5	4	4	3	-	-
Vermont College	22	16,741	475	35.2	1.09	4	5	11	2	-	-
Windham College	34	20,310	496	40.9	1.64	10	17	7	-	-	-
TOTAL INDEPENDENT	329	198,150	4,580	43.3	2.11	143	92	81	11	2	-
TOTAL ALL INSTITUTIONS	929	443,829	8,465	52.4	2.15	587	157	157	24	2	-

*Estimated

TABLE 13

SPACE RATIOS - RATIOS OF SPACE TO OCCUPANTS

	Assignable			Offices		Auxiliary Service Area			
	Buildings	Total Square Foot Per Student	Instructional Square Foot Per Student	Number	Ratio Faculty & Administrative Staff	Sq. Ft. Per Student	Number of Bedrooms	Number of Beds	Ratio Students to Beds
University of Vermont and State Agricultural College	214	302.2	55.9	947	1.06	112.8	1,161	2,199	38.0
Castleton State College	16	179.5	27.0	69	.81	100.8	294	582	53.5
Johnson State College	33	249.4	38.5	52	.91	147.6	279	540	85.3
Lyndon State College	24	299.0	36.4	61	1.07	120.2	197	368	61.2
Vermont Technical College	16	408.6	161.1	31	.71	169.6	206	412	93.4
TOTAL PUBLIC	303	287.9	55.0	1,160	1.03	117.3	2,137	4,101	47.9
Antioch-Putney Graduate School of Education	4	266.8	14.7	3	.30	208.8	18	24	58.5
Bennington College	48	476.3	87.49	84	.97	309.0	320	448	91.4
Champlain College	17*	83.0	11.6	30	.59	62.5	181	404	56.2
College of St. Joseph the Provider	9	550.4	106.5	13	.62	176.6	99	209	160.8
Goddard College	44	212.3	36.9	102	1.24	137.0	285	560	63.4
Green Mountain College	31	400.3	73.0	76	1.07	213.7	414	700	99.7
Marlboro College	33	397.0	116.3	23	.62	188.3	95	156	87.6
Middlebury College	155	543.2	96.0	203	.95	246.1	796	1,209	77.6
Norwich University	49	415.2	114.0	186	1.58	175.0	620	1,240	102.1
Royalton College	19	1,127.6	272.1	25	.89	519.0	71	131	297.7
St. Joseph's College	3	149.8	52.4	3	.18	87.2	11	33	17.8
St. Michael's College	47	336.2	48.4	200	1.56	158.0	713	1,170	76.9
School for International Training	20	259.0	47.8	37	.88	143.5	86	229	113.4
Trinity College	8	227.6	71.2	35	1.54	117.0	161	318	70.6
Vermont College	37	318.5	106.1	65	.94	152.3	254	500	96.3
Windham College	34	225.8	59.4	72	.87	112.0	299	570	70.0
TOTAL INDEPENDENT	558	347.8	72.3	1,157	1.03	253.2	4,423	7,901	81.8
TOTAL ALL INSTITUTIONS	861	319.7	64.2	2,317	1.03	146.2	6,560	12,002	65.9

*Total of leased rooms counted as one building.

LIBRARIES

In addition to collecting data on the physical facilities of Vermont institutions, supplementary information was collected on libraries. The data were reported by the librarian of each institution, and therefore do not include information on collections held by departments or other divisions of the institution.

Library Holdings

Table 14 shows library holdings by institution and total holdings for the public and independent sectors. In addition to the number of titles held by the library, in accordance with the current concept of a library as a multi-media information center, the number of reels of microfilm and other microtexts are included as well as serial titles of periodicals.

The data reflect several factors which influence the extensiveness and intensiveness of holdings at each institution. Whether an institution's holdings are adequate, however, has to be assessed in terms of such factors as (1) the history of the library, (2) the breadth or specialization of the curricula offered, (3) the amount of graduate work offered, (4) the commitment of the institution to its library, and (5) the number of titles which have become obsolescent. It is recommended that a future study be made of the adequacy of the libraries utilizing these criteria and the standards promulgated by the American Library Association.

The table shows a wide variation in the range of titles held per student. For example, the number of titles per student at Champlain College and at Royalton College varies by 267.4 titles. This situation, undoubtedly, reflects in part the nature of the curriculum and the two-year versus four-year status of the institutions, as well as the size of the student bodies. The students at Champlain College, however, have access to the University of Vermont library as do the students at Trinity College and St. Michael's College. Certainly, the number of titles per student is not necessarily an accurate indicator of the adequacy of a library.

If the two extremes of Champlain College and Royalton College are disregarded, however, along with the two specialized institutions, Antioch-Putney Graduate School and the School for International Training, there is still a wide discrepancy among institutions, ranging from 25.1 titles per student at Castleton State College to 140.4 titles per student at Marlboro College. The median number of titles per student at the independent colleges is 56.4, while the average number of titles per student is 63.4. The median number of titles per student at the public institutions is 37.0, and the average number is 64.8.

Table 15 lists the types of visual aids held by the libraries and the cooperative activities in which they are engaged.

Distribution and Acquisition

The distribution of holdings by discipline areas and the patterns of new acquisitions are also of interest in a discussion of libraries, inasmuch as they indicate in part what the past curricular emphases of the institution have been and what areas the libraries are seeking to develop or strengthen. Table 16 shows the percentage of distribution of holdings in the left column and the percentage of acquisition in the right column by discipline areas for each institution.

Eight institutions, one public and seven independent, have holdings of 50 percent or more in the humanities. Two institutions, one public and the other a specialized institution, show 50 percent or more holdings in the social sciences. Two institutions, one public and one independent, show 20 percent or more holdings in the physical sciences. As might be expected, the University of Vermont with its medical school and graduate programs, leads all institutions in holdings in the biomedical field. Vermont Technical College leads in percentage of holdings (33 percent) in the technical and engineering area, with Norwich University having 14 percent and St. Joseph's College having 15 percent of their holdings in that area. A strong emphasis on research may be indicated in the three institutions whose holdings in unclassified and bound periodicals are 20 percent or more.

As far as acquisitions are concerned, eight institutions are committed to acquiring 50 percent or more of their additional holdings in the humanities, and two institutions are focusing 50 percent or more of their additional holdings in the social sciences. The University of Vermont is expanding its holdings in the biomedical sciences by more than 25 percent of its acquisitions, and the Vermont Technical College is devoting more than a third of its acquisitions to the fields of technology and engineering.

Circulation

The number of books circulated to faculty members and students is a reliable indication of the use being made of a library. Table 17 shows the number of volumes circulated in 1968 with estimates of percentage of books circulated to students and staff. This circulation does not necessarily indicate the scholarly emphasis of an institution. In recent years the pattern of library use has changed not only with the introduction of paperbacks, but with the changing study habits of students both within and out of the library as well. The rate of circulation per student may be indicative, however, of the type of curriculum at an institution or of the instructional philosophy which may range from lecture and textbook methods to independent study requiring library research.

Physical Facilities

Table 18 shows the total number of square feet assigned by each institution to the library and the percentage of square feet utilized as stack and reading space. The remaining space represents offices and service or processing areas for the library. In future studies, the number and kinds of stations available within the stack and reading area should be indicated in order to determine not only whether the space is being utilized efficiently, but also to learn whether sufficient stations are available for specific kinds of uses, particularly for concentrated and independent study.

Financial Information

Table 19 presents financial data concerning the institutional libraries, including information on total library expense, acquisition expense, equipment and operating expense, and salaries and wages. Of particular interest is the amount of money spent per student for total library and acquisition expenses. The institution reporting the most dollars per student for both of these categories is relatively new and has a small enrollment compared to other institutions.

The data may also be viewed from the perspective of four-year institutions, two-year institutions, and specialized or newly developing institutions. For example, the average expenditure per student for total library expense for four-year institutions, both public and independent, is $95.49, whereas the average expenditure per student at the two-year institutions is $56.02. The average expenditure per student for the specialized or newly developing institutions (Antioch-Putney Graduate

School, Royalton College, and the School for International Training) is $290.30. The expenditure per student for acquisitions at all four-year institutions is $39.44, at two-year institutions it is $22.95, and at the specialized or newly developing institutions it is $190.11. These figures show not only the high cost of establishing a library, but also the relative differential in costs for total operations and for acquisitions between four-year and two-year institutions.

Special Collections

Table 20 is a listing of special library collections as reported by the librarians at each of the institutions. These special collections reflect in many cases the strengths and interests of the institutions and range from Civil War collections and Vermontiana to wide collections in engineering, literature, linguistics, and music.

TABLE 14

LIBRARY HOLDINGS
(SEPTEMBER, 1968)

	Number of Titles	Titles Per Student	Reels of Microfilm	Units Other Micro-Texts	Number Serial Titles
University of Vermont and State Agricultural College	461,158	79.7	5,307	97,294	3,688
Castleton State College	27,350	25.1	1,282	-	264
Johnson State College	23,391	37.0	1,200	2,750	250
Lyndon State College	30,751	51.2	300	-	1,000
Vermont Technical College	12,000	27.2	2,000	-	350
TOTAL PUBLIC	554,660	64.8	10,089	100,044	5,552
Antioch-Putney Graduate School of Education	3,200	19.9	-	-	-
Bennington College	54,234	110.7	1,604	1,158	417
Champlain College	3,800	5.3	-	-	108
College of St. Joseph the Provider	14,265	109.7	-	-	64
Goddard College	32,863	37.2	1,441	1,800	417
Green Mountain College	38,306	54.6	1,152	660	260
Marlboro College	25,000**	140.4	1,016	2,245	259
Middlebury College	180,557	115.0	7,761	10,006	1,500
Norwich University	86,796	71.5	2,826	181	500
Royalton College	12,000**	272.7	-	-	84
St. Joseph's College	6,000**	32.4	-	-	65
St. Michael's College	48,042	31.6	329	5,600	618
School for International Training	3,235	16.0	-	120	96
Trinity College	38,472*	85.5	1,101	30	322
Vermont College	18,650	35.9	-	-	113
Windham College	47,345	58.1	5,910	-	460
TOTAL INDEPENDENT	612,765	63.4	23,140	21,800	5,283
TOTAL ALL INSTITUTIONS	1,167,415	64.1	33,229	121,844	10,835

*June, 1969 **Estimated

TABLE 15

LIBRARY HOLDINGS - VISUAL AIDS AND COOPERATIVE ACTIVITIES
(SEPTEMBER, 1968)

Institution	Art Prints	Copier(s).	Maps	Microcard	Microfiche	Microfilm	Microtext	Record & Tape	Slide & Movie	Other (Specified)	Cooperative Processing	Council of Vermont Academic Libraries	Inter-library Loan System	Inter-library Loan System (Teletype)	National Union Catalog	New England Library Information Networks	Vermont Free Public Library Union Cat.	Others (Specify)
University of Vermont and State Agricultural College	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	(1)
Castleton State College																		
Johnson State College	X	X	X		X	X			X		X		X	X				
Lyndon State College						X							X	X			X	
Vermont Technical College		X				X											X	
Antioch-Putney Graduate School of Education						X				(2)								(3)
Bennington College	X							X					X				X	
Champlain College						X		X	X									
College of St. Joseph the Provider	X		X			X		X										(4)
Goddard College							X	X	X					X			X	(5)
Green Mountain College						X		X	X								X	
Marlboro College	X		X	X	X	X		X					X				X	(3)
Middlebury College											X		X				X	(1)
Norwich University				X		X		X	X			X	X	X				(1)
Royalton College								X	X									
St. Joseph's College									X				X					
St. Michael's College	X	X	X	X		X		X	X	(6)		X	X	X			X	(1)
School for International Training		X	X		X	X	X		X				X			X	X	(3)
Trinity College	X		X		X	X		X					X	X			X	
Vermont College			X										X					
Windham College		X				X			X				X					(3)

(1) Cooperation with University of Vermont, Middlebury, St. Michael's, and Norwich in planning, cooperative purchasing and use of materials.
(2) All audio-visual aids are available through the "Flaherty Center," R.D. #1, Brattleboro, Vermont.
(3) Cooperative library services with Marlboro, Windham, Antioch-Putney and the School for International Training.
(4) Resource Center for Special Education. (This is a State Department of Education Project in cooperation with the College.)
(5) Involved in cooperation programs operated by the Union for Research & Experimentation in Higher Education and the Council of Small Colleges.
(6) Video-tape (1/2 inch) and Educational Games.

TABLE 16

LIBRARY HOLDINGS - DISTRIBUTION AND ACQUISITION PERCENTAGES
(SEPTEMBER, 1968)

	Humanities	Social Sciences	Physical Sciences	Bio-Medical	Technical & Engineering	Unclassified
University of Vermont and State Agricultural College	24/15	22/14	3/6	12/28	4/4	35/33
Castleton State College	39/30*	50/40*	4/11*	5/10*	2/2*	0/2*
Johnson State College	53/55	31/21	14/23	1/1	0/0	1/0
Lyndon State College	45/39	41/42	11/9	0/9	0/0	3/1
Vermont Technical College	19/15	27/20	20/30	.5/.5	33/34	.5/.5
Antioch-Putney Graduate School of Education	82/NA	15/NA	1/NA	2/NA	0/NA	0/NA
Bennington College	62/56+	31/33+	6/8+	5/1+	5/1+	(1)/1+
Champlain College	40/35	20/25	30/35	8/3	2/2	0/0
College of St. Joseph the Provider	80/68	8/20	2/2	0/0	0/0	0/0
Goddard College	63/60	25/25	7/10	2/3	2/2	1/0
Green Mountain College	34/38	40/20	5/10	4/7	3/5	14/20
Marlboro College	70/60	10/15	10/15	0/0	0/0	10/10
Middlebury College	35/28	30/25	6/6	5/6	2/2	22/33
Norwich University	41/54	33/21	12/15	0/0	14/10	0/0
Royalton College	30/30	40/50	2/2	2/2	1/1	25/15
St. Joseph's College	58/63	12/5	5/0	3/3	15/6	7/23
St. Michael's College	42/48	19/25	2/5	1/9	2/1	33/12
School for International Training	30/40	60/50	1/1	0/0	1/1	8/8
Trinity College	40/NA	38/NA	3/NA	9/NA	2/NA	8/NA
Vermont College	67/60	16/18	9/10	8/12	0/0	0/0
Windham College	33/44	23/13	3/7	3/5	3/0	35/30

TABLE 17

LIBRARY CIRCULATION
(SEPTEMBER, 1968)

	Total	Students	Staff	Others
University of Vermont and State Agricultural College	136,541	78%	12%	10%
Castleton State College	12,271	75	23	2
Johnson State College	25,731	93	5	2
Lyndon State College	8,000*	75	23	2
Vermont Technical College	5,691	87	11	2
TOTAL PUBLIC	188,234			
Antioch-Putney Graduate School of Education	NA	80	20	0
Bennington College	28,809	80	12	8
Champlain College	NA	NA	NA	NA
College of St. Joseph the Provider	2,005	98	2	0
Goddard College	20,000*	75	15	10
Green Mountain College	23,001	86	9	5
Marlboro College	4,000*	80	17	3
Middlebury College	67,367	60	30	10
Norwich University	24,983	88	10	2
Royalton College	800*	60	30	10
St. Joseph's College	722	90	7	3
St. Michael's College	29,271	79	17	4
School for International Training	9,742	68	29	3
Trinity College	12,960	75	23	2
Vermont College	8,789	95	5	0
Windham College	11,148	85	13	2
TOTAL INDEPENDENT	243,597**			
TOTAL ALL INSTITUTIONS	431,831			

*Estimated for 1967/68.

**Does not include Antioch-Putney or Champlain, for which figures were not available.

TABLE 18

LIBRARY PHYSICAL FACILITIES AVAILABLE

	Total Sq. Ft. Assigned	Sq. Ft. Per Student	Sq. Ft. of Stack & Reading	% of Total
University of Vermont and State Agricultural College	95,356	16.5	75,806	79.5
Castleton State College	14,096	13.0	10,121	71.8
Johnson State College	10,059	15.9	8,579	85.3
Lyndon State College	8,512	14.2	6,737	79.1
Vermont Technical College	9,277	21.0	5,459	58.8
TOTAL PUBLIC	137,300	16.0	106,702	77.7
Antioch-Putney Graduate School of Education	648	15.8	648	100.0
Bennington College	12,910	26.3	10,277	79.6
Champlain College	1,050	1.5	1,050	100.0
College of St. Joseph the Provider	2,413	18.6	2,244	93.0
Goddard College	20,651	23.4	11,222	54.3
Green Mountain College	7,616	10.8	4,698	61.7
Marlboro College	7,135	40.1	4,486	62.9
Middlebury College	42,930	27.6	35,888	83.6
Norwich University	24,972	20.6	19,357	77.5
Royalton College	1,710	51.8	1,575	92.1
St. Joseph's College	1,152	6.2	924	80.2
St. Michael's College	33,354	21.9	27,689	83.0
School for International Training	3,598	17.8	1,222	34.0
Trinity College	5,271	11.7	3,480	66.0
Vermont College	4,936	9.5	4,053	82.1
Windham College	13,530	16.6	10,208	75.4
TOTAL INDEPENDENT	183,876	19.0	139,021	75.6
TOTAL ALL INSTITUTIONS	321,176	17.6	245,723	76.5

TABLE 19

LIBRARY FINANCIAL DATA, 1966-67

	Total Library Expense	Dollars Per Student	Acquisition Expense	Dollars Per Student	Equipment & Operating	Salaries & Wages
University of Vermont and State Agricultural College	$651,230	$112.49	$240,612	$41.56	$71,454	$339,164
Castleton State College	46,527	42.76	25,832	23.74	425	20,270
Johnson State College	61,216	96.71	27,940	44.14	10,125	23,092
Lyndon State College	78,466**	130.56	51,306	85.37	6,726	20,434
Vermont Technical College	43,854	99.44	29,015	65.79	1,618	13,226
TOTAL PUBLIC	881,293	103.05	374,705	43.81	90,348	416,186
Antioch-Putney Graduate School of Education	4,500**	109.76	3,500	85.37	100	900
Bennington College	71,594**	146.10	22,466	45.84	2,620	46,508
Champlain College	13,344	18.56	2,812	3.91	132	10,400
College of St. Joseph the Provider	9,328	71.75	3,328	25.60	-	6,000
Goddard College	51,976	58.86	11,976	13.56	7,544	32,456
Green Mountain College	49,144	70.01	17,136	24.41	1,101	30,907
Marlboro College	34,100**	191.57	21,200	119.10	2,400	10,500
Middlebury College	182,250	116.08	60,297	38.41	34,300	87,623
Norwich University	75,998	62.60	24,208	19.94	4,507	47,283
Royalton College	69,750*	1,630.69	49,500	1,125.00	7,500	12,750
St. Joseph's College	8,300*	44.87	1,500	8.11	300	6,500
St. Michael's College	71,868	47.25	25,725	16.91	5,341	40,802
School for International Training	9,067	44.89	1,563	7.74	1,204	6,300
Trinity College	26,145	58.10	18,275	40.61	4,470	3,400
Vermont College	29,119	56.11	8,437	16.26	793	19,889
Windham College	106,270	130.39	72,655	89.15	8,533	25,082
TOTAL INDEPENDENT	812,753	84.10	344,578	35.66	80,875	384,300
TOTAL ALL INSTITUTIONS	$1,694,046	93.00	719,283	39.49	171,223	803,486

*Estimated 1968/69. **1967/68.

TABLE 20

LIBRARY - SPECIAL COLLECTIONS

(As listed by Institution's Librarian, September 1968)

UNIVERSITY OF VERMONT

(1) Vermontiana (Wilbur Collection) comprehensive collection in printed books, serials, etc.
(2) Government documents: U. S. depository collection, good but not strong for late 19th and early 20th century.
(3) Canadian documents: a partial depository for recent years.
(4) Classics: strong collection
(5) Civil War: strong collection
(6) Manuscripts of Vermont historical figures, writers, etc.
(7) Maps: depository for Army Map Service and U. S. Geological Survey, strong for U. S.

CASTLETON STATE COLLEGE

(1) Vermontiana - 348

JOHNSON STATE COLLEGE

(1) Childrens' literature, elementary and secondary
(2) Art - illustrated histories
(3) Government documents - selected depository
(4) Standardized Educational Text
(5) Curriculum collection of public school texts

LYNDON STATE COLLEGE

(1) Basic U. S. and Vermont legal materials
(2) State and Federal administrative agency documents
(3) Vermont collection (planned)

VERMONT TECHNICAL COLLEGE

(1) Main strength is in curricular areas of applied science: electrical, mechanical, electro-mechanical and agriculture

ANTIOCH-PUTNEY GRADUATE SCHOOL OF EDUCATION

Uses the resources of Flaherty Center, RFD #1, Brattleboro, Vermont.

COLLEGE OF ST. JOSEPH THE PROVIDER

(1) Curriculum Library (about 2,000 volumes)

TABLE 20 Continued

GODDARD COLLEGE

(1) Race relations, civil rights (about 1,000 titles)
(2) Non-western cultures (about 1,000 titles)

GREEN MOUNTAIN

(1) Ramsey collection of early American stenciling (tin ware, etc.)
(2) Special archival collection pertinent to this area

MARLBORO COLLEGE

(1) U. S. History - Civil War Period - 400 volumes
(2) Vermont and New England History - 250 volumes

MIDDLEBURY COLLEGE

(1) Abernathy American Literature - 10,000 volumes
(2) Robert Frost Collection - 4,000 volumes
(3) Flanders Ballads - 10,000 volumes

NORWICH UNIVERSITY

(1) Latin America
(2) Military manuscript collection (beginning)

ROYALTON COLLEGE

(1) African Studies
(2) Asian Studies
(3) International Law and Organizations

ST. JOSEPH'S COLLEGE

(1) Bound magazine - first edition covering Civil War Period to present - used for American History Courses

ST. MICHAEL'S COLLEGE

(1) Some college archival materials (History)
(2) Stoehr manuscript collection (Music)

SCHOOL FOR INTERNATIONAL TRAINING

(1) Cross-Cultural Studies
(2) Area Studies (e.g. Iran, India, Brazil)
(3) Linguistics

WINDHAM COLLEGE

(1) Phonograph Record Collection of music and spoken word: 2,000 discs
(2) Russian Language and Literature Collection: 1,774 volumes
(3) U. S. Government Documents Collection since 1965.

CURRICULA

The curricula offered by an institution and the levels at which they are offered are indicative of the institution's role and scope. They also show what academic or career-oriented opportunities are available to meet the future employment needs of students and whether the system can meet the social and economic demands of the State. An analysis of the information in Tables 21 through 26, therefore, is useful for assessing the availability and breadth of educational opportunity available to Vermont students. It is suggested that in future studies data be collected on the number of students enrolled in, or graduated from, each of the curricular areas in order to determine the actual and changing demand for these programs.

For the purpose of this report, however, the information in Tables 21-26 is summarized to reveal the areas of specialization available and the degree level at which they are offered, both at Vermont institutions and through the New England Regional Program.

Graduate Programs

The University of Vermont

The doctoral program at the University of Vermont has been in existence only a little more than a decade. In addition to a primary focus on the doctoral program in medicine, there is a concentration of programs in the biological sciences, the physical sciences, and psychology. The only other doctoral program outside of the sciences and medicine is offered in electrical engineering.

It is reasonable to expect that there will be pressure to establish additional doctoral study programs in the future both in response to the needs of the State and the intellectual environment for the faculty. In planning for the increased financial requirements needed for new programs, faculty resources, the size of the programs, and library resources (particularly for the arts and social sciences) will have to be carefully determined.

The master's degree programs at the University have offerings in agriculture, the biological sciences, business administration, speech pathology, education, basic engineering fields, English, classical languages, modern languages, music, forestry, geography, medical technology, mathematics, philosophy, physical sciences, psychology, and the social sciences. The University offers a master of education degree in elementary and secondary school reading, guidance in the public schools, and personnel work in higher education; master of science degree programs in teaching of mathematics, in teaching a combination of physics and chemistry, and in teaching a combination of botany and zoology. These latter programs provide a service to public education both within and outside the State of Vermont and are designed particularly to upgrade the quality of scientific knowledge of secondary school teachers. The University is planning a similar combination master of science degree in teaching for the social sciences.

In general, the University's graduate program is responding to the needs of the State in offering advanced degrees in education, engineering, business administration, the health and allied health sciences, and agriculture. The program is characterized by a balance between the basic academic disciplines and career-oriented programs.

It is recommended that a continuing study be made of the special needs of the State and the Burlington area and that reasonable accommodations be provided through summer and evening courses for students who desire to upgrade their knowledge and skills at the graduate level but are not able to do so on a full-time or day-time schedule.

Independent Institutions

The following independent institutions offer master's degree programs in selected areas:

Antioch-Putney School of Education in (1) elementary education, (2) secondary education, (3) combined elementary education, (4) general psychology, and (5) social work and administration.

Bennington College in the fine and applied arts.

Middlebury College in (1) plant physiology, (2) English language and literature, (3) French, (4) Italian, (5) Spanish, (6) philology and literature of the Romance languages, (7) German, (8) philology and literature of the Germanic languages, (9) Russian, and (10) chemistry.

Norwich University in aerospace and aeronautical engineering.

Royalton College conducts a summer session for social studies teachers in secondary schools.

St. Michael's College in (1) business education and administration, (2) specialized teaching areas at the secondary level, and (3) general education.

The School for International Living offers advanced degree work in (1) educational psychology, (2) French, (3) the philology and literature of the Romance languages, (4) international relations, (5) foreign service programs, and (6) teaching of English as a foreign language.

Windham College in Russian through a summer institute.

The graduate programs at the independent institution are characterized by the specialized purposes of the institution such as the Antioch-Putney Graduate School of Education and the School for International Living, by a history of specialization in a particular curricular area such as the extensive language program at Middlebury College, by service to business and education at St. Michael's College, and by the summer institutes at Royalton College and at Windham College. The program in the fine and applied arts at Bennington College is a specialization of the institution, and the two graduate programs at Middlebury College in plant physiology and chemistry have probably resulted from the special qualifications of the faculty in these two areas.

The independent institutions have exercised caution in establishing graduate programs and the advanced degree programs they offer have been long-established, meet the special needs of a geographical area, and are being conducted on an experimental basis in an area of specialization. It should be noted, however, that with the exception of business and education, the programs extend beyond the particular career requirements of Vermont residents.

Baccalaureate Programs

The University of Vermont

As is appropriate to the long history of the University of Vermont, first as a private liberal arts institution and its more recent status as the State university, the University of Vermont has a comprehensive offering for majoring in the liberal arts, the basic and applied sciences, agriculture, the medical and allied health sciences and technologies, home economics, forestry, geography, which meet the economic and technological needs of the State.

The Four-Year State Colleges

The primary focus of the majors in the curricula at the four-year State Colleges is a result of the teacher education function these institutions have had. Therefore, the majors offered are in a limited number of areas, and these are further confined to the subject areas which are taught in the elementary and secondary schools such as English, art, music, French, Spanish, mathematics, history, and general programs in the arts and sciences. In addition, one institution offers a major in psychology and two offer majors in inter-area fields of study. When the State Colleges enlarge their offerings, it is suggested that they give first priority to career-oriented curricula in the areas noted in Table 23.

The Four-Year Independent Institutions

The curricula of the four-year independent colleges are characterized by an emphasis on the traditional academic disciplines or liberal arts. Even in the more experimental institutions this is true. In those institutions there is also a tendency to offer more majors within a discipline, thereby permitting students to specialize in a specific division of the discipline. With the exception of Goddard College which has majors in art education, early childhood and elementary education, and in special education for the mentally disturbed, the deaf, and exceptional children, the emphasis of the independent institutions in teacher education appears to be on the secondary level. Only two institutions, Trinity College and Vermont College (a two-year institution with a special baccalaureate program in medical technology) offer majors in the health professions. With the exception of teacher education and the health professions, and business and commerce at four institutions, and engineering at Norwich University, career-oriented curricula are lacking in the independent institutions.

Associate Degree Programs

Table 22 shows the areas in which associate degree (two-year) programs are offered by Vermont institutions as reported on the Higher Education General Information Survey (HEGIS) reports. The table illustrates clearly the emphasis of the institutions. Vermont Technical College is strongly oriented toward engineering along with programs in agriculture and dental hygiene, the University of Vermont toward the health services curricula, Castleton State College toward nursing. Health services curricula are also offered by Green Mountain College and Vermont College. Business and secretarial curricula are offered by all the two-year independent colleges. Champlain College offers a major in scientific data processing, in addition to its secretarial and business orientation, and Green Mountain College includes offerings in the areas of education and the arts.

Curricula Unavailable at Vermont Institutions

For planning purposes, it is perhaps more important to consider curricula that are not available than it is to recount the programs offered by Vermont public and independent institutions. Table 23 lists curricula which are not available, not all of which are of equal importance to Vermont's residents and economy, of course. However, some of them stand out as requiring serious consideration and it may be presumed there would be a demand if programs were available. In general, they represent career-oriented curricula both at the baccalaureate and associate degree levels, and areas which would serve directly some of the manpower needs of the State of Vermont, particularly the needs of the allied health sciences and the technical and vocational needs of business and industry. One area which should be of increasing interest in Vermont is hotel and restaurant management.

Regional Cooperation

The lack of specific curricula within Vermont institutions is somewhat alleviated by cooperative arrangements with the State Universities in the New England region. Table 24 lists the curricula which are available to students from Vermont at other New England universities. Table 25 lists curricula which are available to students from other New England states at the University of Vermont. Not included in the table is the arrangement with four New England States for medical education at the University of Vermont. While the New England Board of Higher Education should continue to develop and strengthen such cooperative enterprises, it is doubtful that all the needs of Vermont for post-secondary education can be solved in this manner.

Allied Health Sciences

There appears to be a definite need to develop additional manpower in Vermont in the allied health sciences. The Executive Director of the Health Careers Council of Vermont, Mr. Pelton Goudey, has reported that the manpower need for health care in Vermont is in a state of rapid transition.[1]

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[1] Memorandum from Mr. Goudey to Mitchel N. Call, June 26, 1969.

He gives five reasons for this condition:

(1) the utilization of health manpower is changing constantly;

(2) Medicare, Medicaid and other Federal programs are creating expanded needs for health manpower, including physical therapists, occupational therapists, recreational therapists, pharmacists, nurses, medical laboratory technicians, and rehabilitation and home maintenance specialists;

(3) automation in coronary care units and business offices is creating new health manpower needs;

(4) the last two hospital diploma schools of nursing in Vermont have been absorbed by the Division of Health Sciences at the University of Vermont, and unless there is a substantial increase in enrollment in the associate degree program there is likely to be a potentially serious shortage of nurses in Vermont in three years; and

(5) the two schools of practical nursing which are State-supported face substantial cutbacks in funds so their programs will not be able to expand at a time when nursing homes are expanding their capacities and increasing in number and hospitals are utilizing more and more practical nurses and nurses aides to help fill gaps in the registered nursing staff.

Mr. Goudey also noted that the Vermont State Social Welfare Department, and the Department of Public Health in its concern for environmental health and control, have expanded needs for social workers, psychiatric social workers, and mental health services. In addition, dental hygienists and dental aides are also reported in short supply, as are dentists. Although there may be ways of utilizing the existing health manpower needs more effectively, there seems to be no area in the health manpower field where there is not a need.

Technical-Vocational Education

There is no area in which there appears to be more of a need for expanded post-secondary education opportunities than in technical-vocational education. This is apparent not only at the associate, baccalaureate, master's and doctor's degree levels, but also at a post-secondary certificate level. In addition, there is a need for upgrading of knowledge and skills on a non-degree basis in order to compensate for obsolescence and to train supervisory personnel. These are essential not only for maintaining and developing the State's industry and business, but also for providing broader opportunities for employment and advancement.

Although the need for engineering technicians can be met in large part by the Vermont Technical College, there are at least three factors which make it difficult to assign the major responsibility to it for vocational-technical education. They are:

1. Vermont Technical College, while it is capable of serving in large part the State's needs for engineering technicians, is physically isolated from industrial centers;
2. The curriculum at Vermont Technical College is geared to a higher level of academic preparation than is required for vocational technicians;
3. Vermont Technical College is essentially a residential institution which makes it difficult for students to attend on an "earn as you learn" basis.

Finally, there are no means whereby programs in vocational-technical education are articulated with one another so that a student can move readily from secondary school preparation, to a post-secondary certificate in vocational education, to an associate degree level, and thence to the baccalaureate and graduate degree levels.

In 1968, the Vermont Technical Education Committee conducted a study, commonly known as the Sargent report,[2] which showed that there is a need for vocational-technical training in the State at both Level I (engineering technicians having an associate degree) and Level II (industrial technicians having a vocational institute certificate or its equivalent). The study projected an annual demand for the years 1968-1973 of approximately 720 new technicians, about 500 of which would be provided through existing educational sources. These resources included the Vermont Technical College, the projected fifteen vocational-technical centers, apprenticeship programs, and "in-plant" service schools.

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[2] Vermont Technical School Feasibility Study, prepared for the Committee for Technical Education, Frank H. Sargent, Project Director. Montpelier, Vermont, November, 1968.

It was further estimated that the annual need for technical college graduates (Level I) beyond those supplied by Vermont Technical College would be approximately 80.[3] The study questioned, however, "whether sufficient full-time day student input exists," and stated that it appears essential to provide evening programs for employed students either in the form of extension programs or as a community college. Moreover, much depends on how quickly the two-year vocational institutions which are being planned are initiated and whether they become fully operative. It is estimated that the total need for industrial technicians can be fully met when the fifteen institutes are in operation. The study also states that the main concern is to take steps "to provide an increased number of potential students; and providing off campus extension facilities for those students concentrated in major areas who cannot or will not leave their present employment but desire further education."[4]

The study also examined the demand for evening courses. Areas in which 132 Vermont companies expressed a desire for evening courses included the following arranged in their order of desirability:[5]

Drafting
Basic electricity
Construction and blueprint reading
Tool manufacturing
Supervision
Mathematics
Cost estimation
Wood technology
Printing techniques
Maintenance
Repair of electrical appliances
Safety
Production and inventory control
Metallurgy
Basic high school subjects
Clerical subjects, bookkeeping
Sewing machine operation

To alleviate the technical school problem the study suggested six alternative courses of action:

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[3] Ibid., p. 26.

[4] Ibid., p. 35.

[5] Ibid., p. 38.

A. Build one or more technical colleges

B. Expand present Vermont Technical College facilities immediately

C. Establish extension centers operated by Vermont Technical College

D. Establish technical college extension centers affiliated with existing institutions of higher learning

E. Establish a community college

F. Possible combinations of courses of action above.

The course of action which seems most feasible is to include technician education within the total framework of post-secondary education in Vermont, somewhat in the manner of "D" above, by utilizing as fully as possible existing institutions of higher learning. It was pointed out repeatedly in the Sargent report that high school graduates generally want to be identified with "advanced" education. Insofar as possible, therefore, the administrative structures and facilities of existing institutions should be utilized in order to overcome resistance to continuing education. It is recommended also that the fifteen vocational institutes being planned at the 13-14 grade level have a definite emphasis on being post-secondary and that their programs be included in the comprehensive plans of the Coordinating Council.

Remedial and College Preparatory Curricula

In recent months it has been proposed to the Higher Education Council that a Post-High School Academy be established under the sponsorship of the Vermont Colleges which would serve persons who have the potential to benefit from further education. The participants would include high school dropouts, students who have completed high school but who are not planning to continue their education, students who are unqualified to matriculate in a higher education institution because of their level of achievement, as well as veterans and persons who have entered the labor market. It was suggested that the Academy operate on an academic year basis and provide remedial and college preparatory programs. Vermont colleges would agree to accept students who had completed the program and upon recommendation of guidance personnel at the Academy, and would agree to provide 50% of the financial aid necessary for the individual to continue his education, with the remainder coming from other sources, including industry and business.

Initially, the Academy would consist of 100 to 150 students, with 60% coming from Vermont and 40% out-of-state. The estimated cost would be from $3,000 to $5,000 per student per year.

The idea is commendable and its implementation is urged. Although the concept of the Academy was developed in response to the needs of a certain segment of the population, it is doubtful, however, that the Academy will serve the requirements of a large number of potential students who could not spend an academic year away from their homes because of financial or personal reasons.

TABLE 21

CURRICULA OFFERED IN DEGREE PROGRAMS IN VERMONT FOUR-YEAR INSTITUTIONS

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
AGRICULTURE																										
Agriculture, General	M	M																								
Agriculture, Business	M																									
Agronomy, Field Crops	M	M																								
Animal Science	M	M																								
Dairy Science	M	M																								
Farm Management	M																									
Fish & Game or Wild Life Management	M																									
Dairy Manufacturing	M																									
Dairy Technology																										
Horticulture	M	M																								
International Agriculture	M																									
Poultry Science	M	M																								
Soils Science	M	M																								
Agriculture, Other Fields	M																									
ARCHITECTURE																										
Landscape Architecture											M															
BIOLOGICAL SCIENCE																										
Biological Science, General						M					M						M									
Premedical Science	S												M		M				M							
Predental Science	S																		M							
Preveterinary Science	S																									
Biology, General				M				M			M				M		M		M				M		M	
Botany, General	M	M	M					M			M								M							
Zoology, General	M	M	M								M						M									
Anatomy & Histology		M									M						M									
Bacteriology		M									M															
Microbiology		M	M								M															
Biochemistry		M	M								M															
Agricultural Chemistry		M	M																							

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
Biophysics		M	M																							
Ecology		M	M								M						M									
Genetics											M															
Nutrition	M																									
Pathology		M	M																							
Pharmacology		M	M																							
Physiology		M	M									M														
Plant Pathology		(1)	(1)									M														
Plant Physiology		(2)	(2)										M	M												
Biological Science, Other Fields		(3)	(2)								M	M							M							
BUSINESS & COMMERCE																										
Business & Commerce, General		M									M				M		M		M							
Accounting	M																M									
Business & Commerce, Other	(4)																		M							
COMPUTER SCIENCE & SYSTEM ANALYSIS																										
Computer Science & System Analysis, General											M															
Computer Science																	M									
EDUCATION																										
Physical Education	M					D																				
Education of Mentally Disturbed											M															
Education of the Deaf											M															
Speech & Hearing	(5)	(5)																								
Education of Exceptional Children											M															

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
Agricultural Education	M	M																								
Art Education					M						M															
Business or Commercial Education				M																M			M			
Home Economics Education	(6)	(6)																								
Industrial Arts Education (Non-vocational)					M																					
Music Education	M	M				D																				
Specialized Teaching Areas, Not Listed						M											M	(27)		M	(28)	(28)				
GENERAL TEACHING FIELDS (LEVELS)																										
Nursery and/or Kindergarten					M						M															
Early Childhood Education	M										M															
Elementary Education	M	M		M	M	M	M				M															
Secondary Education	(7)			M	M	M	M				M				M				M	M					M	
Combined Elementary & Secondary Education						M	M				M															
Adult Education											M															
General Areas, Not Listed		(8)		M	M			M			M	M			M					M						
OTHER EDUCATIONAL FIELDS																										
Educational Administration, Supervision or Finance		(9)									M								M							
Counseling & Guidance		(9)									M															
History, Philosophy, & Theory of Education & Comparative Education											M						M									
Curriculum & Instruction											M															
Education, General (Without Specialization)											M									M						

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
Educational Psychology											M											C				
Non-Teaching Fields, Not Listed		(10)																								
ENGINEERING																										
Aerospace, Aeronautical, Etc. Engineering																M										
Agricultural Engineering	M																									
Civil Engineering	M	M													M											
Electrical Engineering, Electronics	M	M	M												M											
Industrial & Management Engineering	M														M											
Mechanical Engineering	M	M													M											
All Other Engineering	(11)																									
ENGLISH AND JOURNALISM																										
English & Literature	M	M		M	M	M		M			M	M	M	M	M		M		M		C		M		M	
Journalism												M														
FINE & APPLIED ARTS																										
Art, General	M				M			M			M	M	M				M									
Music, Including Sacred Music	M	M			M			M			M	M	M										M			
Speech & Dramatic Arts	M							M			M	M	M				M									
Fine & Applied Arts, Other	(12)							M	M		M	M					M									
Folk Lore											M															
FOREIGN LANGUAGES & LITERATURE																										
Linguistics											M						M									
Latin and/or Classical Greek	M	M										M	M				M		M				M			

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
French	M	M		M				M			M	M	M	M	M		M		M		C	C	M		M	
Italian	S												M	M			M				C					
Portuguese																					C					
Spanish	M	M		M				M			M		M	M	M		M				C		M		M	
Philology & Literature of Romance Languages								M					M	M								C				
German	M	M						M			M		M	M			M				C		M		M	
Other Germanic Languages																					C					
Philology & Literature of Germanic Languages								M					M	M												
Arabic																	M				C					
Chinese																	M				C					
Hebrew	S																				C					
Hindi and/or Urdu																	M				C					
Japanese																					C					
Russian	(13)							M					M	M	(26)		M				C				M	M
Other Foreign Languages																					C					
FORESTRY	M	M																								
GEOGRAPHY	M	70									M		M				M									
HEALTH PROFESSIONS																										
Dental Hygiene	70																									
Medical Technology (Bachelor Plus)	M	M																					M	M		
Medicine, MD only			M																							
Nursing and/or Public Health Nursing	M																									
Clinical Medical Sciences (Beyond MD)			(14)																							
Health Professions, Other Fields	(15)																									

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont B.A.	University of Vermont M.A.	University of Vermont Ph.D.	Castleton State College B.A.	Johnson State College B.A.	Lyndon State College B.A.	Antioch-Putney Graduate School of Education M.A.	Bennington College B.A.	Bennington College M.A.	College of St. Joseph the Provider B.A.	Goddard College B.A.	Marlboro College B.A.	Middlebury College B.A.	Middlebury College M.A.	Norwich University B.A.	Norwich University M.A.	Royalton College B.A.	Royalton College M.A.	St. Michael's College B.A.	St. Michael's College M.A.	School for International Training B.A.	School for International Training M.A.	Trinity College B.A.	Vermont College B.A.	Windham College B.A.	Windham College M.A.
HOME ECONOMICS																										
Home Economics, General	M																									
Child Development/Family Relations	(16)																									
Clothing & Textiles	(16)																									
Foods & Nutrition	(16)																									
Institutional Management, Institutional Administration	(16) (17)																									
Home Economics, Other Fields	(18)																									
Law (Business)																	M									
MATHEMATICAL SUBJECTS																										
Mathematics	M	M		M	M	M		M			M	M	M		M				M				M		M	
Statistics (including Actuarial Science)											M						M									
MILITARY SCIENCE																										
Military Science													M		M											
PHILOSOPHY																										
Philosophy	M	M						M			M	M	M		M		M		M						M	
Scholastic Philosophy																			M							
PHYSICAL SCIENCES																										
Physical Sciences, General				M		D					M															
Astronomy											M															
Chemistry	M	M	M		M			M			M		M	M	M				M				M		M	
Physics	M	M	M					M			M	M	M		M										M	
Geology	M	M									M	M	M				M								M	
Earth Sciences, All Other											M															

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
Physical Sciences, All Other											M															
PSYCHOLOGY																										
General Psychology	M	M	M	M			M	M			M		M				M								M	
Clinical Psychology	D	D	D								M															
Counseling Psychology											M															
Social Psychology											M															
Rehabilitation Counselor Training											M															
Education Psychology	(19)										M															
RELIGION																										
Religious Education & the Bible																	M									
Theology																	M		M							
Religion, Nonsectarian, Liberal Arts	M										M	M	M													
SOCIAL SCIENCES																										
Social Sciences, General	S			M	M			M			M						M									
American Studies, American Civilization, Americal Culture											M						M		M		C					
Anthropology	M							M			M	M	M				M									
Area Studies, Regional Studies	M										M	M					M									
Economics	M	M									M	M	M		M		M		M						M	
History	M	M		M	M	M		M			M	M	M		M		M		M				M		M	
International Relations											M	M					M					C				
Political Science or Government	M	M						M			M		M		M		M		M						M	

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted)

TABLE 21 Continued

Curricula	University of Vermont			Castleton State College	Johnson State College	Lyndon State College	Antioch-Putney Graduate School of Education	Bennington College		College of St. Joseph the Provider	Goddard College	Marlboro College	Middlebury College		Norwich University		Royalton College		St. Michael's College		School for International Training		Trinity College	Vermont College	Windham College	
	B.A.	M.A.	Ph.D.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	M.A.	B.A.	B.A.	B.A.	M.A.
Sociology	M	M									M	M	M						M				M			
Basic Social Sciences											M															
Agricultural Economics	M	M																								
Foreign Service Programs	(20)	(20)																			C	C				
Social Work & Social Administration	(21)																									
Applied Social Sciences							M																			
Social Sciences, Fields Not Identified				M				M			M	M			M				M						M	
BROAD GENERAL CURRICULA AND MISCELLANEOUS FIELDS																										
Arts, General Program					M			M			M															
Sciences, General Program					M						M															
Arts & Sciences, General Program					M			M			M														M	
Teaching of English as a Foreign Language																	M		M		C	C				
Inter-area Fields of Study					M	M*		M			M	M														

M = Major S = Specialization D = Program Being Developed C = Courses Offered (no degree granted) *Behavioral Sciences

TABLE 22

ASSOCIATE DEGREE PROGRAMS OFFERED IN VERMONT INSTITUTIONS

	University of Vermont	Castleton State College	Vermont Technical College	Champlain College	Green Mountain College	St. Joseph's College	Vermont College
Associate in Arts					M		
Associate in Sciences				M			
ORGANIZED OCCUPATIONAL CURRICULA BELOW THE TECHNICAL OR SEMI-PROFESSIONAL LEVEL							
Science or Engineering Related			(23)				
Non-Science & Non-Engineering Related					M		
ORGANIZED OCCUPATIONAL CURRICULUM OFFERED AT THE TECHNICAL OR SEMI-PROFESSIONAL LEVEL							
ENGINEERING RELATED CURRICULA							
Architectural & Building Tech.			'69				
Civil Technology			M				
Electrical and/or Electronics			M				
Industrial Technology			M				
Mechanical Technology			M				
All Other Engineering Related Curricula			M				
SCIENCE RELATED CURRICULA							
Agriculture			(24)				
HEALTH SERVICE CURRICULA							
Dental Hygiene	M		M				
Medical or Biological Laboratory Technician	M		M				
Nursing, Diploma Program	'69	M			(25)		M
X-Ray Technology	'69						
All Other Health Service Curr.	(22)						
Scientific Data Processing				M			
All Other Science Related Curr.					M		
NONSCIENCE & NONENGINEERING RELATED							
Business & Commerce				M	M	M	M
Secretarial				M	M	M	M
Educational					M		
Fine, Applied, Graphic Arts					M		
All Other Nonscience or Non-engineering curricula							M

M = Major

FOOTNOTES FOR TABLE 21 and TABLE 22

(1) UVM - Under Botany and Soil Science
(2) UVM - Medical Microbiology
(3) UVM - Animal Pathology
(4) UVM - Marketing, Finance, Industrial Management
(5) UVM - Under Biological Sciences, Other Fields
(6) UVM - Also Home Economics Extension Education
(7) UVM - Must Specialize in Another Discipline
(8) UVM - Personnel Education, Special Education, Reading and Language Arts
(9) UVM - Degree in Education
(10) UVM - Master of Extension Education
(11) UVM - Agricultural Engineering, Management Engineering, Bio-Mechanical Engineering
(12) UVM - Public Speech, Theater, Broadcasting
(13) UVM - As a part of Area Studies
(14) UVM - Residency Program
(15) UVM - See Speech and Hearing (#2316)
(16) UVM - No degree options in Home Economics
(17) UVM - Dietectics, Internship
(18) UVM - Home Management
(19) UVM - Degree in Education
(20) UVM - Under Agriculture
(21) UVM - Under Home Economics
(22) UVM - Physical Therapy - Beginning in 1969
(23) VTC - Pre-Technical Program
(24) VTC - Agriculture Engineering Offered, Agribusiness to start in 1969/70
(25) GMC - Pre-Nursing Transfer Program
(26) NOR)
WND) - Summer Institute
(27) ROY - Summer Seminar for Social Studies Teachers in Secondary Schools
(28) SIT - Teaching of Languages

TABLE 23

CURRICULA UNAVAILABLE AT VERMONT INSTITUTIONS*

Baccalaureate or Higher Degree Programs:

AGRICULTURE

- **Food Science
- Ornamental Horticulture
- Poultry Husbandry

ARCHITECTURE

- Architecture
- City Planning

BIOLOGICAL SCIENCE

- Virology
- Mycology
- Parasitology
- Cytology
- Embryology
- **Entomology
- Genetics and Experimental Breeding
- Optometry (Pre-professional only)

BUSINESS AND COMMERCE

- **Hotel and Restaurant Administration
- Secretarial Sciences

COMPUTER SCIENCE AND SYSTEM ANALYSIS

- Data Processing
- System Analysis
- Computer Science & System Analysis, Other Fields

EDUCATION

- Health Education
- Recreation, Separate Curriculum
- Education of the Partially Sighted
- Education of the Blind
- Education of Emotionally Disturbed
- Education of the Crippled
- Trade and Industrial Education (Vocational)

OTHER EDUCATIONAL FIELDS

- Rehabilitation Counselor Training

ENGINEERING

- Architectural Engineering
- **Chemical Engineering, Petroleum Refining Engineering
- Engineering Sciences, Physics, Mechanics
- Environmental Health and Sanitary Engineering
- General Engineering and Non-Specialized Curricula
- Geological Engineering, Geophysical Engineering, Mining Geology
- Metallurgical and Materials Engineering, Ceramics Engineering, Materials Science
- Mining Engineering, Mineral Engineering, Mining, Mineral Dressing
- Petroleum Engineering

FOREIGN LANGUAGES AND LITERATURES

- Other Slavic Languages

HEALTH PROFESSIONS

- Chiropody or Podiatry
- Dentistry, DDS or DMD only
- Hospital Administration
- **Occupational Therapy
- Optometry, Professional only
- Osteopathy
- Pharmacy
- Physical Therapy, Physiotherapy (Bachelor plus)
- Public Health
- Radiological Technology (Bachelor plus)
- Veterinary Medicine, DVM only
- Clinical Dental Sciences (Beyond DDS and DMD)
- Clinical Veterinary Medical Sciences

*Curricula are defined as programs sufficient in scope to allow a student to specialize or major in the area.

**Programs available to Vermont students under the "New England Regional Students Program."

TABLE 23 Continued

LIBRARY SCIENCE

MILITARY SCIENCE

- Merchant Marine
- Naval Science
- Air Force Science

PHYSICAL SCIENCES

- Metallurgy
- Meteorology
- Pharmaceutical Chemistry
- Geophysics, Including Seismology
- Oceanography

RECORDS MANAGEMENT & MEDICAL RECORDS LIBRARIAN

SOCIAL SCIENCES

- Industrial Relations
- Public Administration
- Trade and Industrial Training

Two-Year Programs:

Organized Occupational Curriculum Offered at the Technical or Semi-Professional Level:

ENGINEERING RELATED CURRICULA

- Aeronautical Technology
- Chemical Technology

SCIENCE RELATED CURRICULA

- **Forestry

HEALTH SERVICE CURRICULA

- Dental Assistant
- Dental Laboratory Assistant
- Nursing, Practical

NONSCIENCE AND NONENGINEERING RELATED CURRICULA

- Home Economics
- Bible Study or Religious Work
- Police Technology or Law Enforcement

**Programs available to Vermont students under the "New England Regional Students Program."

TABLE 24

NEW ENGLAND REGIONAL STUDENT PROGRAMS--UNDERGRADUATE STATE UNIVERSITY CURRICULA OPEN ON A REGIONAL BASIS 1969-1970

OPEN TO STUDENTS FROM VERMONT

Curricula	University
Agricultural Engineering	Maine
Art (B.F.A.)	Connecticut Massachusetts New Hampshire
Art Education	New Hampshire
Astronomy	Massachusetts
Chemical Engineering	Connecticut Maine Massachusetts Rhode Island
Commercial Fisheries*	Rhode Island
Comparative Literature	Maine
Entomology	Connecticut Maine Massachusetts
Floriculture*	Connecticut Massachusetts
Food Distribution*	Massachusetts
Food Industry Management*	Maine
Food Science and Technology	Massachusetts
Forest Management*	Maine
Fruit and Vegetable Crops*	Connecticut Massachusetts
Hotel Administration	New Hampshire
Insurance	Connecticut Rhode Island
Italian	Connecticut Rhode Island
Journalism	Maine Massachusetts Rhode Island
Laboratory Animal Technician*	Massachusetts
Landscape Architecture: Environmental Design	Massachusetts
Landscape Operations*	Massachusetts

TABLE 24 Continued

Lumber and Building Materials Business Management*	Massachusetts
Merchandising (Home Furnishings, Textiles, Clothing)*	Maine
Microbiology	Maine Massachusetts
Nursery Management*	Connecticut
Occupational Therapy	New Hampshire
Pharmacy	Rhode Island
Physical Education for Women	New Hampshire
Physical Therapy	Connecticut
Public Health	Massachusetts
Public Management	Maine
Pulp and Paper Program**	Maine
Pulp and Paper Technology***	Maine
Recreational Leadership Training	Massachusetts
Recreational Service Education	Connecticut
Restaurant and Hotel Management***	Massachusetts
Sanitary Engineering	Connecticut Maine
Turf, Arboriculture and Park Management*	Massachusetts
Wildlife Management: Fisheries Biology	Massachusetts
Wood Technology	Massachusetts
Wood Utilization*	Massachusetts

*An Associate Degree curriculum

**A five-year curriculum continuing through one graduate year

***Both Bachelor and Associate Degree curricula are offered

Table 25

PROGRAMS AVAILABLE AT UNIVERSITY OF VERMONT FOR STUDENTS FROM NEW ENGLAND UNIVERSITIES

Agricultural Education	Maine
Anthropology	New Hampshire Rhode Island
Area Studies: Canada	Connecticut Maine Massachusetts New Hampshire Rhode Island
Area Studies: Russia and Eastern	Maine Massachusetts New Hampshire
Classics (Greek and Latin)	Maine New Hampshire Rhode Island
Dairy Manufacturing	Maine New Hampshire Rhode Island
Dental Hygiene*	Connecticut Maine Massachusetts New Hampshire
Foreign Agriculture	Maine New Hampshire Rhode Island
Laboratory Animal Technology	Connecticut Massachusetts New Hampshire Rhode Island
Management Engineering	Connecticut Maine New Hampshire
Medical Technology*	Maine Massachusetts** New Hampshire** Rhode Island**
Nursing**	Connecticut Maine Massachusetts New Hampshire Rhode Island
Religion	Connecticut Maine Massachusetts New Hampshire Rhode Island

*Associate Degree curriculum

**Planned, but subject to final decision

STUDENT FINANCIAL ASSISTANCE

Each institution of higher education has its own limited resources for providing students with financial assistance through scholarships, loans, grants, and work-study programs. Financial assistance is also available through programs sponsored by the Federal government, such as the Educational Opportunity Grants and the National Defense Education Act loans. In addition, the State of Vermont sponsors Senatorial and Honor Scholarships and the Incentive Grant program.

The Incentive Grant program is the most extensive of the financial assistance programs offered by the State. Funds are available through the Vermont Student Assistance Corporation which was created by the Vermont Legislature in 1965 to administer the program. The program has the advantage of permitting the funds to be used by Vermont students at both in-state and out-of-state institutions. In April of 1969, the statute governing the amount of each grant was liberalized by increasing the amount of each grant to $1,000 for students of families whose combined taxable income is not in excess of $10,000 annually.

Tables 26 and 27 show how the Incentive Grant funds were expended by the Vermont Student Assistance Corporation for the years 1967-68 and 1968-69. The corporation increased its support of Vermont students by 61%, or $340,352 in 1968-69 over 1967-68, benefitting 71%, or 844 more students. In 1967-68, 86.4% of the funds were used at in-state institutions, and in 1968-69, 84.3% were so used.

A breakdown of the 1968-69 grants shows that 1,108 students attending in-state public institutions (excluding nursing) received $475,494 or 53.1% of the total funds expended; 432 students attending in-state independent institutions (excluding nursing) received $201,350 or 22.5% of the total funds expended; 302 students attending out-of-state institutions received $126,900 or 14.2% of the total funds expended. One hundred fifty-five (155) students received grants for in-state nursing education for a total of $74,489, while 28 students received $13,450 to attend nursing schools out-of-state.

When the number of Vermont students benefitting from the program is compared with the number of Vermonters enrolled in public and independent institutions, it is found that of the 4,926 undergraduates enrolled at the public institutions in Vermont in the Fall of 1968 (see Table 3), 22.5% received Incentive Grants; of the 1,349 Vermonters enrolled at Vermont independent institutions, 327 received Incentive Grants; and of the 997 undergraduates attending degree-granting institutions out-of-state, 30.3% received Incentive Grants.

Although it is likely that the program does not fully meet the financial needs of all students, particularly the economically deprived, the Legislature of the State of Vermont is to be highly commended for the creation of the program, its level of funding, and its flexibility.

TABLE 26

VERMONT STUDENT ASSISTANCE CORPORATION
INCENTIVE GRANTS - 1967-68

	Freshmen		Upperclass		Total	
	No.	Amount	No.	Amount	No.	Amount
Castleton State College	29	$ 12,800.	63	$ 30,550.	92	$ 43,350.
Champlain College	57	26,200.	33	19,550.	90	45,750.
College of St. Joseph the Provider	3	1,800.	1	500.	4	2,300.
Goddard College	1	500.	3	1,200.	4	1,700.
Green Mountain College	1	200.	-	-	1	200.
Johnson State College	32	17,750.	58	29,700.	90	47,450.
Lyndon State College	13	7,100.	20	10,900.	33	18,000.
Middlebury College	2	700.	7	2,900.	9	3,600.
Norwich University	7	2,900.	19	8,900.	26	11,800.
St. Joseph's College	7	3,700.	6	3,000.	13	6,700.
St. Michael's College	13	5,500.	29	13,350.	42	18,850.
Trinity College	25	12,405.	48	21,125.	73	33,530.
University of Vermont	125	46,050.	190	95,930.	315	141,970.
Vermont College	-	-	5	2,800.	5	2,800.
Vermont Technical College	65	27,100.	20	11,100.	85	38,200.
Windham College	1	500.	-	-	1	500.
Out-of-State Colleges	87	32,950.	65	31,250.	152	64,200.
Medical Center Hospitals X-Ray Technician	5	2,200.	1	200.	6	2,400.
Castleton State - Nursing	2	1,000.	-	-	2	1,000.
Fanny Allen - Nursing	11	5,600.	-	-	11	5,600.
Jeanne Mance - Nursing	16	7,000.	36	17,500.	52	24,500.
Mary Fletcher - Nursing	19	9,550.	25	13,100.	44	22,650.
Thompson School - Nursing	2	581.	-	-	2	581.
University of Vermont - Nursing	9	3,900.	5	2,000.	14	5,900.
Vermont College - Nursing	1	500.	-	-	1	500.
Out-of-State Nursing	12	5,100.	12	6,500.	24	11,600.
TOTALS	545	$233,586.	646	$322,045.	1,191	$555,631.

TABLE 27

VERMONT STUDENT ASSISTANCE CORPORATION
INCENTIVE GRANTS - 1968-69

	Freshmen		Upperclass		Total	
	No.	Amount	No.	Amount	No.	Amount
Castleton State College	61	$ 27,900.	120	$ 51,950.	181	$ 79,850.
Champlain College	76	39,600	68	32,600.	144	72,200.
College of St. Joseph the Provider	9	5,400.	5	2,800.	14	8,200.
Goddard College	2	1,000.	2	450.	4	1,450.
Green Mountain College	2	600.	1	500.	3	1,100.
Johnson State College	65	31,810.	110	54,950.	175	86,760.
Lyndon State College	35	15,159.	59	28,450.	94	43,609.
Marlboro College	-	-	2	1,300.	2	1,300.
Middlebury College	2	400.	7	2,900.	9	3,300.
Norwich University	14	5,350	19	9,000.	33	14,350.
St. Joseph's College	14	7,300	9	3,800.	23	11,100.
St. Michael's College	26	10,000.	45	20,150.	71	30,150.
Trinity College	20	10,900	73	30,450.	93	41,350.
University of Vermont	194	77,530	306	121,900.	500	199,430.
Vermont College	14	6,150.	9	4,600.	23	10,750.
Vermont Technical College	103	42,795.	55	23,050.	158	65,845.
Windham College	4	1,900.	9	4,200.	13	6,100.
Out-of-State Colleges	147	61,550.	155	65,350.	302	126,900.
Medical Center Hospitals X-Ray Technician	8	3,700.	2	700.	10	4,400.
Castleton State - Nursing	1	500.	-	-	1	500.
Fanny Allen - Nursing	19	9,889.	-	-	19	9,889.
Jeanne Mance - Nursing	24	12,300.	35	15,400.	59	27,700.
Mary Fletcher - Nursing	28	11,900.	34	16,500.	62	28,400.
Thompson School - Nursing	4	2,800.	-	-	4	2,800.
University of Vermont - Nursing	7	3,700.	1	200.	8	3,900.
Vermont College - Nursing	2	1,300.	-	-	2	1,300.
Out-of-State Nursing	11	5,350.	17	8,100.	28	13,450.
TOTALS	892	$396,783.	1,143	$499,300.	2,035	$896,083.

PART II

COMPREHENSIVE PLANNING FOR POST-SECONDARY EDUCATION IN VERMONT

The State of Vermont has demonstrated a strong commitment to higher education through its capital investments in and its operating support of the University of Vermont, the State Colleges, and the Vermont Technical College, as well as through the activities of the Vermont Student Assistance Corporation and the Vermont Educational Buildings Financing Agency. In addition, the State has shown its concern for the welfare of its citizens through its support of a strong program in the medical and health sciences.

The independent colleges, although they serve only a small segment of Vermont's in-state student population, nonetheless, contribute substantially to and reinforce Vermont's reputation as a state with a commitment to higher education. Many of these independent colleges enjoy a national reputation for their academic and experimental programs. They represent a significant contribution not only to the educational prestige of Vermont, but to its economy as well.

Although a wide variety of opportunity is represented in the public and independent sectors of higher education, it would be imprecise to say that Vermont's institutions of higher education constitute a comprehensive system of post-secondary education. Until recently, perhaps, it has not been necessary to plan and coordinate post-secondary education in a systematic way. But that is no longer true.

Among the reasons for the need for comprehensive planning are the unique characteristics of the State itself. First, Vermont's geography and the distribution of its population make it difficult to locate centers of post-secondary education that can meet the needs and desires of all Vermont students on an economical basis. Second, Vermont is handicapped by a limited tax return from its comparatively low population base. Third, the State's financial resources are limited and have to be carefully and efficiently expended. Fourth, the basic components of Vermont's economy as presently constituted do not seem to require an extensive development of manpower with higher education training in the traditional sense. Fifth, although there are several groups within the State that are concerned with post-secondary and higher education, there is no existing structure or mechanism to coordinate the various, and sometimes competing interests, to recommend policies, to collect and disseminate information, or to plan for the future.

The Institute for Educational Development in this part of the report presents five recommendations as the groundwork for planning and coordinating post-secondary education in Vermont.

A discussion of the capability of the State to meet the financial needs of post-secondary education is given in Part III.

A Coordinating Council for Post-Secondary Education

The primary recommendation of this report is that there be established immediately a Coordinating Council for Post-Secondary Education in Vermont. Such an agency is necessary to provide a mechanism to plan and coordinate the several interests and activities of post-secondary education. In general, the recommendation parallels very closely the recommendation of the Legislative Council made in August 1968 to establish a Higher Education Planning Council and the powers and duties specified in that recommendation. The major exception is in the composition of the membership of the Council.

The Coordinating Council, as conceived by IED, would be responsible for the following functions:

(1) To advise the Governor and the Legislature on statewide policies for post-secondary education in Vermont;

(2) To identify the short- and long-range post-secondary needs of the State;

(3) To assess economic developments within the State and to anticipate the implications of such developments for post-secondary education in meeting the occupational and professional needs of the State;

(4) To collect and disseminate information on post-secondary education in the State;

(5) To insure coordination of post-secondary education programs and facilities so they will be maximally available to all Vermont citizens; and

(6) To seek ways in which cooperation between the public and independent institutions of post-secondary education can be realized for the mutual benefit of the institutions and of Vermont citizens.

The Coordinating Council should be composed of fifteen (15) members, appointed by the Governor and responsible to him. Terms of appointment should be for six years, with one-third appointed every two years. Ordinarily, no more than three members should be associated with an institution of higher or post-secondary education, nor should more than three members hold public or elective office, including the legislature. In addition, it is suggested that they serve without salary.

The membership of the Council should be relevant to the political and educational interests of the State, and should represent a collaborative rather than a competitive attempt at educational planning and coordination. It is suggested that the members be legal residents of the State of Vermont and be chosen with due consideration for geographical areas and population distribution, with consideration given to representation of minority groups. The members should be representative of industry, agriculture, business and finance, recreation, social welfare, construction and materials, secondary education, vocational and technical education, higher education, health services, art and cultural interests. Figure 1 suggests the agencies with which the Council would cooperate.

The Council should appoint an Executive Director at a salary commensurate with the responsibilities of the position. The Director should be responsible for executing the functions of the Council in order to carry out the policies created by the Council. He should initiate studies that are appropriate for the Council in its planning and coordinating tasks.

Support staff for the Executive Director should include an assistant for research and secretarial and clerical help. Facilities should include adequate space to carry out the work of the Council.

The work of the Coordinating Council would consist in large part of continuing and refining the contents and recommendations of this report. If it is to plan realistically and effectively, it will have to be well-informed. Information of the type included in this report on enrollment projections, inventory of physical facilities, libraries, curricula, and financial capability of the State are basic to the planning process. The Coordinating Council should also establish an appropriate time annually for the updating of information from each institution.

The Council should also serve as the collection and transmittal agency of the Higher Education General Information Survey (HEGIS) reports made annually by each institution to the U. S. Office of Education.

The Council could also act as a clearinghouse for information on many other facets of post-secondary education in the State. Information should be collected and updated

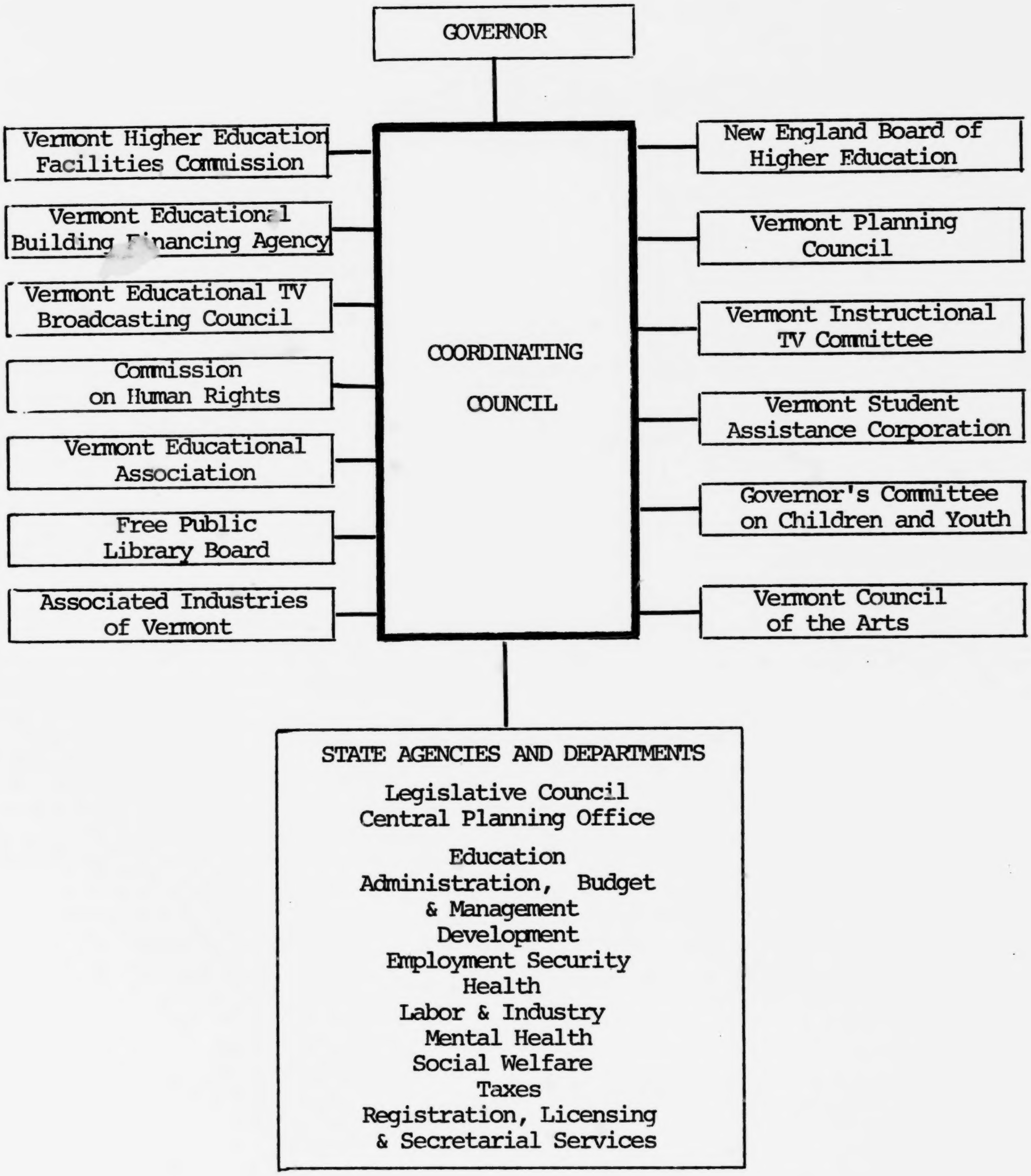
GOVERNOR
Vermont Higher Education Facilities Commission
Vermont Educational Building Financing Agency
Vermont Educational TV Broadcasting Council
Commission on Human Rights
Vermont Educational Association
Free Public Library Board
Associated Industries of Vermont
COORDINATING COUNCIL
New England Board of Higher Education
Vermont Planning Council
Vermont Instructional TV Committee
Vermont Student Assistance Corporation
Governor's Committee on Children and Youth
Vermont Council of the Arts
STATE AGENCIES AND DEPARTMENTS
Legislative Council
Central Planning Office
Education
Administration, Budget & Management
Development
Employment Security
Health
Labor & Industry
Mental Health
Social Welfare
Taxes
Registration, Licensing & Secretarial Services

FIGURE 1. AGENCIES WITH WHICH COORDINATING COUNCIL SHOULD COOPERATE

regularly on institutional plans for expansion; financing; admissions policies; size of administrative staff; qualifications and compensation of faculties; characteristics of student bodies; curricula offered; innovations in the education field which may affect planning; local, regional, and national trends in education; Federal programs for aid to education; and comprehensive planning in other states.

As the final clearinghouse function, the Council should act as the articulating agency between secondary and post-secondary education schools. In this capacity it could receive appropriate advance information necessary for planning curricula and providing easy transition from secondary to post-secondary education.

Financially, the Council should be fully informed of, and take into account in its planning and policy-making functions, the financial capabilities of the State, as well as the financial positions of the member institutions.

Range of Post-Secondary Educational Opportunity

The second recommendation is that Vermont provide post-secondary educational opportunity for all qualified Vermont students. In order to determine the diversity of programs needed for the continuing social, economic, intellectual, and personal development of the citizens of Vermont, special consideration must be given to:

(1) manpower needs in (a) agriculture, (b) business and industry, (c) conservation and recreation, and (d) the professions;

(2) current and potential economic resources available for supporting post-secondary education;

(3) existing post-secondary education resources and facilities and their potential utilization;

(4) population centers with inadequate post-secondary opportunities;

(5) special facilities and programs for the socially and economically disadvantaged.

IED and its consultants are cognizant of the fact that Vermont has a relatively wide range of higher education opportunities through its public and independent institutions, but that the demand for higher or post-secondary education by Vermont high school graduates is low compared with other states. It may be assumed that not as many qualified youth are continuing their education as would be able to benefit from further education.

There are, undoubtedly, many social and economic reasons for the comparatively low aspiration rate of Vermont high school students for continuing education. Among them are the level of education obtained by parents, the relative lack of need for advanced education in the career opportunities provided in some geographical areas, the amount of disposable income a family can devote to continuing education, and the proximity of educational opportunity. Nevertheless, the role of higher education in creating economic and social opportunities both for an individual and for society is so well established that the low aspiration rate should not be ignored or taken for granted.

As a corollary to the above recommendation, therefore, it is recommended that a concerted effort be made to encourage high school youth to continue their education. Two immediate resources are available: (1) guidance counsellors in the high schools, and (2) recruitment teams from institutions of higher education.

The Role of Independent Institutions

The third recommendation is that serious consideration be given to the need and desirability as well as feasibility of including independent post-secondary institutions as part of a statewide, comprehensive system of continuing education.

If the Coordinating Council concludes that there is a need for including the independent institutions as part of a statewide system and that their inclusion is desirable, it should then:

(1) determine whether such institutions desire to become involved, in what manner, and under what conditions;

(2) develop a plan for the kind of educational programs to be offered by the independent institutions and provide arrangements for facilities, enrollment, instruction, methods of financing and administration; and

(3) determine ways in which the public institutions can offer facilities and services to the independent institutions for the benefit of all Vermont citizens.

Although the four-year and two-year independent degree-granting institutions enroll only 6% to 7% of Vermont's high school graduates annually, this is not necessarily an expression of disinterest by these institutions in the need of Vermont's citizens for continuing education beyond high school. In fact, several presidents have indicated that they wish to make a contribution to the State beyond economic and cultural benefits and are particularly interested in being of educational service to the communities of which they are a part.

It is suggested that the Coordinating Council in determining the need for and desirability and feasibility of including the independent institutions in a statewide, comprehensive system of continuing education not limit its consideration only to degree-granting courses or programs, but that arrangements be explored which will be beneficial for a broad range of Vermont citizens in terms of age, interests, and previous educational preparation.

A guiding principle in consideration of including the independent sector in a comprehensive system would be to provide Vermont citizens with a balanced system of educational opportunity at the least cost to the State. If cooperative arrangements can be worked out, both the public and independent sectors should benefit. The public institutions would not have to duplicate programs which already exist, and the independent institutions could be strengthened.

Two methods of providing financial support for institutions providing educational service to Vermont residents are direct grants and contractual arrangements on a per student basis. Direct grants might be used when additional facilities or equipment are required. Contractual arrangements might be used to reimburse the institution for the cost of providing an educational service, either on a program or cost-per-student basis.

"Continuing Education"

The fourth recommendation is that the State of Vermont establish a network of Career and Personal Development Centers to meet the continuing education needs of its citizens, communities, and industries.

A primary purpose of the Career and Personal Development Centers would be to test, as it were, the actual and potential demand for higher education. Reference has been made previously to the relatively low aspiration level of Vermont high school students for higher education. In effect, the Centers would bring higher education to the people and, hopefully, would stimulate young people to continue their education.

A second purpose of the Centers would be to provide educational opportunities for upgrading in one's career or for personal development and growth. The courses offered at the Centers, therefore, should be offered on both a degree and non-degree basis, and should include offerings that are appropriate for the vocational and professional interests of an area, and offerings in the liberal and creative arts for the personal development of individuals. Arrangements could be worked out with local industries and Chambers of Commerce on vocational and technical courses that are especially required for employees.

Six sites have been identified as the most effective locations for the Centers. In designating these sites, attention was paid to commuting distances and geographical barriers. The locations are:

Bennington
Burlington (also to serve Essex Junction)
Montpelier and Barre
Rutland
St. Johnsbury
Springfield (also to serve Brattleboro,
  Bellows Falls, Windsor, White River Junction)

Although it may be necessary at first to locate the Career and Development Centers in a high school, every effort should be made to create a separate identity for the Center so that it achieves a status of being definitely post-secondary. For vocational and technical courses, the facilities of business and industry might be used appropriately. Finally, arrangements for adequate teaching and library resources will have to be considered.

Each center would be under the direction of an individual appointed by the sponsoring institution. The director should be sensitive to the needs of the community and particularly to the career and personal development needs of potential students. His responsibilities would include liaison between the community and the sponsoring institution, recruitment, and guidance.

In order to promote the post-secondary characteristics of the Career and Personal Development Centers, it is recommended that each Center be sponsored by an established degree-granting institution on the recommendation of the Coordinating Council. In cases where it is difficult to create a collaborative enterprise, the University of Vermont, through its Extension Division, could be the sponsoring institution.

It should also be possible for the Center to recruit faculty members not only from the sponsoring institution but from other institutions as well and, as appropriate, from business and the professions and practitioners of the arts. In cases where a faculty member is drawn from another institution, appropriate arrangements should be approved by the administration with regard to time and compensation.

Upon recommendation of the Coordinating Council for Post-Secondary Education, the State of Vermont would contract with the sponsoring institution (or, in some cases, institutions) to operate a Career and Personal Development Center.

It is the consensus of IED and its consultants that the Center concept avoids the pitfalls of establishing new institutions at a time when the need for them is not clearly perceived. The Centers will also help determine the location and kind of institutions that should be created in the future if the demand truly exists. In the meantime, post-secondary education opportunities will be provided for a broad cross-section of Vermont citizens and provide services to Vermont business and industry.

Future Need for New Institutions

The fifth recommendation is that no new institution be established by the State of Vermont at the present time, but that the Coordinating Council

(1) continue to examine on an annual basis the need for and desirability of establishing new institutions;

(2) determine the requirements of such institutions, if a need appears, as to the facilities, staff, administrative and financial support;

(3) appraise, on a regular basis, the effectiveness and efficiency of utilization of present facilities;

(4) ascertain the changing demands for post-secondary education on the success of the Career and Personal Development Centers (described on pages 79 to 81) in making evident the need for new institutions such as community colleges and two-year technical institutes and the geographical areas in which they should be located.

At a time when the demand for higher education is increasing dramatically on a national level and the climate for establishing new institutions has been so favorable across the country, it may seem overly cautious or conservative for the Institute for Educational Development and its consultants to make this recommendation. Among the factors that led to this conclusion were the following:

(a) There are few population centers where public or independent institutions do not exist which are sufficiently large to support a community or junior college on a commuting basis.

(b) There is no clear indication that the population base of the State will expand greatly within the next decade.

(c) There is no indication that the ability for Vermont industry to recruit professionals from outside the State will decrease.

(d) There is no reason to believe that the current pattern of students going out-of-state for higher education will change significantly.

(e) Although the number and percentage of high school students continuing their education is increasing gradually, the projected enrollments of the public and independent institutions indicate that they will be able to accommodate the increased number of students.

(f) Even if there were a dramatic increase in the number of high school graduates continuing their education, there is not unanimous agreement that the size of the State Colleges should be set arbitrarily at approximately 1,000 students each.

(g) Although there are educational advantages to having a large proportion of out-of-state students at the State Colleges and the University, these advantages have to be considered in light of the demands for and costs of higher education in Vermont.

(h) The present commitment and the increasing costs of education will continue to be a major financial strain on the State.

PART III

FINANCIAL CAPABILITY OF THE STATE OF VERMONT[1]

The financial status of the State of Vermont has several components: (1) the operating budget surplus or deficit carried from past years; (2) the prospects for operating budget surpluses or deficits in the future; and (3) the nature and structure of the bonded debt. Since aid to education has always come solely from General Fund revenues and has been included as a General Fund expenditure, only General Fund financial information will be considered. While natural growth of the State's revenues would automatically provide more funds for higher education, if the present apportionment of State funds remains constant, a major question would seem to be whether funds in excess of those provided by increased natural growth might be needed. Vermont's freedom to maneuver with respect to higher education depends heavily on the financial heritage of the past and expectations for the future. Vermont's financial problems, however, are acute and will probably remain acute. This fact will influence the ability of the State to undertake changes in its educational system.

After several years of surpluses, in the State's General Fund, a modest deficit of roughly $1.5 million was realized in Fiscal 1969. A substantially larger deficit, probably at least $9 million, is expected for Fiscal 1969. Revenues from the present tax structure would have fallen short of the Governor's proposed expenditures for Fiscal 1970 by $18.7 million if there had been no additional taxes. Table 28 shows the actual and anticipated surpluses and deficits in the Vermont General Fund for Fiscal years 1960-1971. Fiscal 1970 should show a small surplus since the Vermont Legislature during the 1969 session passed a tax bill which is expected to produce revenues exceeding projected expenditures. The Governor signed the tax bill, therefore the projected deficit for Fiscal 1970 of nearly $19 million will not occur.

On the other hand, the projected gap between anticipated revenues and requested expenditures for Fiscal 1971 is so large that, even with the passage of the new tax bill, the natural growth of revenues, and the trimming of any "fat" in the budget, it will be difficult to balance the budget.

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[1] This discussion was prepared by Dr. David K. Smith, Chairman of the Department of Economics, Middlebury College.

The tax load in Vermont is already very heavy. A recent study of state and local tax burdens throughout the United States conducted by the Tax Foundation, Inc. showed that the state and local taxes paid per $1,000 of personal income in Vermont were eighth highest in the country and that no state east of the Mississippi River except New York has a higher per capita tax burden (Table 29). Note that these data were compiled prior to the passage of the tax program by the 1969 session of the Legislature.

The unusually heavy tax burdens in Vermont, combined with budget pressures, make it unlikely that large increases in spending for higher education will occur.

There is, however, the possibility that reallocation of expenditures may favor increased spending for education. Vermont has always been a heavy spender on education. Table 30 shows that the State spends more per capita on education than any other state in New England by a substantial margin. In addition, Table 31 reveals that spending for education in Vermont has been increasing rapidly, both absolutely and relative to other expense categories. More than half the entire General Fund spending carried out by the State is for education. Table 32 shows General Fund Appropriations by Function for Fiscal Years 1967-1971. Large increases in education expenditures are projected for 1970 and 1971, although the proportion of total spending for education is likely to drop back to approximately 50%. Table 33, State Appropriations for Higher Education for Fiscal Years 1960-1969, shows that appropriations have nearly quadrupled during that time period. Such expenditures have grown from 10.8% of total appropriations in 1960 to 17.0% in 1969.

Political realities, however, appear to make a substantial reallocation of expenditures very difficult. Most of the State's expenditures support programs administered by the various Department heads within the State Government. Department heads are appointees of the Governor and their programs have his support. There is no Department head for higher education. In fact, there are several competing agencies which have programs relevant to higher education. There are also competing programs within some Departments. Primary and secondary education, in contrast, have an organizational base in the State Government and vigorous spokesmen for their programs. They are in a position to compete more effectively for funds vis-à-vis other Departments whereas higher education is not. Higher education does have strong support from a number of legislators, but a major reallocation of resources which would increase the proportion of General Fund revenues for higher education seems unlikely without an organizational base within the State Government.

Another aspect of the State's fiscal condition is its debt status. An important question is whether its debt position permits the recommendation of increased bonding for higher education spending. Tables 34 and 35 show two dimensions of the State's debt situation. The General Fund debt plus interest as of the end of Fiscal 1968 stood at about $200 per capita, a heavy but not unreasonable magnitude. But the General Fund debt increased very rapidly in Fiscal 1968 and cannot help but repeat this performance in Fiscal 1969. There is a large volume of authorized but unissued bonds carried forward from 1968. Also, approximately $21.5 million of additional bonding, one-half of which is for education, has been requested by the Governor in response to requests for about $105 million by various Departments of the State Government.

The burden of debt service (Table 35) has been running six to seven percent of General Fund revenues for the past several years. It is expected to increase to approximately 11% under the impact of the new bonding of Fiscal 1968 and 1969. Fifteen percent of revenues is considered to be the "absolute" limit which a state can afford for debt service. Debt service data shown in Table 35 indicate a peak of interest plus principal payments in 1970. It is highly probable that new bond issues will shift the peak to a future year. However, the debt service burden is such that the State will not return to Fiscal 1969 levels until 1977, even if no new debt is issued.

Table 36 shows past bond issues for education in the State. Bonding in support of public schools is currently taking about 50% of new General Fund flotations and this pattern is likely to continue. The absence of public school bonding in Fiscal 1966 and 1967 is explained by the General Fund surplus of those years and of 1965. The surplus was used primarily for the public schools. The data in Table 36 show a pattern of stable bonding support for the State colleges since 1965. Bonding for the State university, in contrast, has fluctuated.

Additional debt for higher education can only be proposed after careful consideration of its total impact on State fiscal policies and a determination that the total credit position of the State will not be jeopardized. The need for caution cannot be overemphasized, given the economic and political attractiveness of debt versus increased taxes. The State has not lost its triple-A credit rating even with the flood of new bonding. There seems to be real doubt that credit ratings are any longer centrally important factors for the types of investors with which Vermont could be most concerned.

Projections of the volume of funds available from the expansion economy are also important for assessing the State's fiscal capabilities with regard to higher education. The application of an anticipated proportion of General Funds revenues spent on higher education to the total anticipated revenue figures should provide an indication of the volume of funds available. Table 37 shows that higher education appropriations (which are virtually identical with expenditures, according to responsible officials) as a percent of General Fund revenues for the past six fiscal years averaged 14.4%. The average for the past three years was 15.1%, whereas for Fiscal 1969 the average was 17.0. The use of each percentage figure provides a range of possible sums.

There is, however, a high probability that the Fiscal 1969 tax structure will not be continued for Fiscal 1970 and thereafter. Instead of the $77.8 million of General Fund revenues which the present tax structure would yield in 1970, legislation requested by the Governor, passed by the House, and now in the hands of the Senate, would raise new revenues to bring the anticipated General Fund revenues for Fiscal 1970 to more than $96 million. If the present properties of General Fund revenues for higher education continue and total revenues increase, expansion of support for higher education can be expected. On the other hand, the severe inflation the nation is presently experiencing cannot help but dilute the effectiveness of the additional funds provided, at least in the short run. Table 38 shows the amounts which might be expected for higher education support under the new tax structure under certain alternative assumptions.

The University of Vermont and the four State Colleges have one additional source of funds which should be recognized. This is the changing of the "mix" of in-state and out-of-state students. Since the out-of-state student is charged from $500 to $1,200 more in tuition and fees than the in-state student (see Table 1), the acceptance of fewer in-state students in preference for outside applicants automatically increases available funds, presuming, of course, sufficient applicants from the outside. One hundred less Vermonters at the University would mean $120,000 extra funds, under present tuition, for example. Obviously, a very hard choice is being suggested when the need for funds is such as to result in the denial of education for Vermonters at state-subsidized institutions, but the possibility must be recognized.

Even with the increased revenues from the additional taxes voted, it is probable that the full range of financial needs for public higher education in Vermont cannot be met. The State is being forced to pay the most critical attention to the priorities of various proposals in view of pressures of needs versus resources; hence, it seems unlikely that Vermont can support major expansions of public higher education programs.

TABLE 28

VERMONT GENERAL FUND--REVENUES, EXPENDITURES, SURPLUSES OR DEFICITS, FISCAL YEARS 1960-71

Fiscal Year	Revenues	Expenditures	Surplus (S) or Deficit (D)
1960	$27,925,000	$26,672,000	$ 1,253,000 S
1961	29,336,000	27,907,000	1,429,000 S
1962	31,481,000	30,512,000	969,000 S
1963	32,884,000	32,473,000	411,000 S
1964	37,324,000	35,379,000	1,945,000 S
1965	43,657,000	39,117,000	4,540,000 S
1966	50,267,000	46,129,000	4,138,000 S
1967	58,433,000	53,636,000	4,797,000 S
1968	65,322,000	70,639,000	5,317,000 D[1]
1969 (est.)	70,935,000	82,303,000	11,368,000 D est.[3]
1970 (est.)	77,488,000	96,142,000	18,654,000 D est.[2]
1971 (est.)	84,845,000	128,600,000 (on request by Dept. heads)	

1. The bulk of the deficit is due to the spending of the 1967 surplus. A true deficit of roughly $1.5 million was experienced.
2. Tax legislation recently passed eliminates the deficit and provides a small surplus.
3. Latest State estimates set this figure at $9 million plus.

Source: Prepared from data supplied by Budget and Management Division, Department of Administration, State of Vermont, January, 1969.

TABLE 29

COMPARISON STATE AND LOCAL TAX BURDEN PER $1,000 OF PERSONAL INCOME IN THE FIFTY STATES FOR 1957 AND 1967

	Per $1,000 Personal Income		Percent Increase
	1957	1967	
New England Region			
Massachusetts	$ 97	$113	17%
Connecticut	77	91	19%
Vermont	109	120	11%
Rhode Island	78	98	26%
Maine	92	106	16%
New Hampshire	84	93	10%
Middle Atlantic Region			
New York	$ 96	$132	37%
Delaware	52	98	87%
Maryland	77	103	34%
New Jersey	72	93	29%
Pennsylvania	80	95	19%
Southeast Region			
Florida	$ 96	$107	11%
Louisiana	110	116	6%
Virginia	81	93	15%
Georgia	88	96	9%
North Carolina	85	99	17%
West Virginia	79	102	28%
Kentucky	79	95	20%
Tennessee	86	96	11%
Arkansas	88	100	13%
South Carolina	91	96	6%
Mississippi	109	111	2%
Alabama	80	94	17%
Great Lakes Region			
Wisconsin	$ 98	$120	22%
Michigan	84	100	18%
Indiana	72	101	41%
Illinois	75	85	13%
Ohio	70	82	17%

TABLE 29 Continued

	Per $1,000 Personal Income		Percent Increase
	1957	1967	
Plains State Region			
Minnesota	$104	$123	19%
Iowa	107	109	12%
Kansas	97	110	13%
South Dakota	124	118	-5%
Nebraska	88	93	6%
North Dakota	123	111	-9%
Missouri	71	93	32%
Southwest Region			
Arizona	$ 98	$128	30%
New Mexico	100	116	16%
Oklahoma	96	106	10%
Texas	81	91	12%
Rocky Mountain Region			
Wyoming	$101	$132	31%
Colorado	102	120	17%
Montana	102	114	12%
Idaho	96	121	26%
Utah	99	118	19%
Far West Region			
California	$100	$122	22%
Hawaii	--	135	--
Nevada	96	112	17%
Washington	92	112	22%
Oregon	102	109	7%
Alaska	--	94	--
U. S. Average	$ 87	$106	21%

Source: Tax Foundation, Inc.

TABLE 30

PER CAPITA STATE EXPENDITURES ON EDUCATION, 1960, 1966, 1967 AND STANDING AMONG NEW ENGLAND STATES (ALL DATA IN DOLLARS)

Unit	1960	1966	1967
Vermont	$ 45.92 (1)	$ 104.73 (1)	$ 128.56 (1)
New Hampshire	27.18 (4)	47.10 (5)	68.82 (4)
Connecticut	35.77 (2)	63.14 (4)	55.42 (6)
Massachusetts	20.47 (5)	37.71 (6)	60.12 (5)
Rhode Island	26.75 (5)	75.80 (2)	89.52 (2)
Maine	29.39 (3)	65.61 (3)	85.22 (3)
TOTAL NEW ENGLAND	30.91	65.68	81.28
TOTAL U. S.	49.60	75.29	107.72

Source: State Department of Finances, Bureau of Census, Department of Commerce, 1960, 1966, 1967.

TABLE 31

STATE OF VERMONT CASH DISBURSEMENTS
BY FUNCTION FOR FISCAL YEARS 1965 - 1968
(In Thousands)

	1965	1966	1967	1968
General Government	$ 3,006	$ 3,437	$ 4,016	$ 4,545
Protection to Persons and Property	3,057	3,570	3,857	4,044
Conservation of Health and Sanitation	5,722	6,898	6,851	7,459
Development and Conservation of Natural Resources	1,733	2,271	2,958	3,196
Airport Development	21	16	22	22
Charities and Institutions	5,537	6,093	7,169	10,404
Education	16,771	20,064	24,195	36,154
Recreation	26	27	31	31
Miscellaneous	180	189	601	253
Debt Service	3,050	3,558	3,931	4,536
Total Cash Disbursements	$39,116	$46,129	$53,636	$70,638
% Increase Over Previous Year	10.6%	17.9%	16.3%	31.7%

Source: Budget and Management Division, Department of Administration, State of Vermont

TABLE 32

GENERAL FUND APPROPRIATIONS BY FUNCTION FOR FISCAL YEARS 1967-1971

(In Thousands)

Activity	1967	1968	1969	Requested 1970	Recommended 1970	Requested 1971
General Government	$ 4,682	$ 5,065	$ 4,901	$ 5,814	$ 5,282	$ 5,992
Protection to Persons & Property	4,300	4,345	4,070	4,187	4,157	5,226
Health and Sanitation	7,135	7,919	7,239	10,979	8,879	11,500
Development & Conservation	3,160	3,534	4,214	5,251	3,865	5,453
Charities & Institutions	8,981	10,786	12,937	23,357	19,526	27,898
Education	27,730	40,464	40,762	56,854	45,098	64,434
Transportation	31	30	75	102	--	104
Miscellaneous	1,286	728	2,379	706	662	386
Debt Service	4,179	4,537	5,049	6,625	6,664	7,599
Special Items					2,000	
TOTALS	$61,486	$77,409	$80,625	$114,876	$96,134	$128,594

Source: Budget and Management Division, Department of Administration, State of Vermont.

TABLE 33

HIGHER EDUCATION APPROPRIATIONS FOR FISCAL YEARS 1960-1969
(In Thousands)
(No debt service included)

Unit	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Middlebury College	24.	24.	24.	24.	24.	24.	-	-	-	-
New England Higher Education Compact	20.	21.	10.	10.	10.	11.	15.	15.	25.	25.
Norwich University	90.	90.	100.	100.	100.	100.	40.	40.	-	-
Scholarships:										
Nursing	15.	15.	15.	15.	15.	15.	-	-	-	-
Senatorial	60.	60.	60.	60.	60.	80.	90.	90.	90.	90.
University of Vermont Medical	-	-	10.	10.	10.	10.	8.	-	-	-
Vermont Student Assistance Corporation	-	-	-	-	-	-	125.	140.	576.	938.
Teachers Colleges (Study Plan)	-	-	-	-	-	-	-	-	-	-
Teacher Training	496.	520.	502.	517.	-	-	-	-	-	-
Vermont Agriculture and Technology Institute	-	134.	135.	141.	-	-	-	-	-	-
Vermont State Colleges	-	-	47.	-	983.	1,046.	1,492.	1,646.	2,665.	2,935.
University of Vermont	2,527.	2,649.	2,964.	2,943.	3,879.	4,275.	4,633.	5,008.	6,498.	7,700.
University of Vermont Dental Hygiene	-	-	45.	45.	-	-	-	-	-	-
University of Vermont ETV	-	-	-	5.	-	-	-	59.	410.	444.
TOTAL	3,237.	3,513.	3,912.	3,870.	5,681.	5,561.	6,403.	6,998.	10,264.	12,132.
% of General Fund	10.8	11.5	12.8	12.1	14.2	13.9	12.8	12.8	15.6	17.0

Source: Budget and Management Division, Department of Administration, State of Vermont. We are advised that "Appropriations" may properly be viewed as "Expenditures."

TABLE 34

TOTAL VERMONT STATE DEBT ISSUED YEARLY, FISCAL YEARS 1957 - 1968

Year	General Fund	Highway	Total Issued
1957	$ 7,632,500	$ 6,000,000	$13,632,500
1958	12,806,282	6,000,000	18,806,282
1959	8,000,000	8,000,000	16,000,000
1960	13,025,000	10,000,000	23,025,000
1961	13,662,000	8,000,000	21,662,000
1962	5,000,000	3,000,000	8,000,000
1963	9,680,377	3,000,000	12,680,377
1964	8,575,000	3,200,000	11,775,000
1965	11,135,000	3,000,000	14,135,000
1966	10,440,000	6,000,000	16,440,000
1967	10,000,000	10,000,000	20,000,000
1968	24,000,000	21,000,000	45,000,000
	(25,942,130.52 authorized but unissued as yet)	(17,768,000 authorized but unissued as yet)	(43,710,130.52[1] authorized but unissued as yet)

Source: Budget and Management Division, Department of Administration, State of Vermont.

1. In February,1969, $20,000,000 of this debt was issued.

TABLE 35

DEBT SERVICE REQUIREMENTS, FISCAL YEARS 1969-1978
(as of debt 6-30-68)

Fiscal Year	General Fund	Highway Fund	Total for Both Funds
1969	$4,928,187	$5,136,235	$10,064,442
1970	6,085,059	5,340,263	11,425,322
1971	5,833,865	5,221,565	11,055,430
1972	5,826,544	5,102,868	10,929,412
1973	5,567,905	4,984,170	10,552,075
1974	5,428,584	4,860,570	10,289,154
1975	5,249,545	4,732,168	9,981,713
1976	4,962,677	4,614,005	9,576,682
1977	4,837,132	4,490,843	9,327,975
1978	4,711,587	4,372,830	9,084,417

Source: Budget and Management Division, Department of Administration, State of Vermont.

TABLE 36

VERMONT STATE BOND ISSUES FOR EDUCATION,
FISCAL YEARS 1953-1968

Year	Higher Education		Public Schools	Total Issued
	UVM	State Colleges		
1953	$ 122,000	$	$	$ 122,000
1954			1,000,000	1,000,000
1955			3,000,000	3,000,000
1956				
1957				
1958		1,364,285	3,300,000	4,664,285
1959				
1960			1,800,000	1,800,000
1961	2,100,000			2,100,000
1962			2,000,000	2,000,000
1963	4,135,000	465,073		4,600,073
1964			2,000,000	2,000,000
1965	400,000	1,800,000	4,000,000	6,200,000
1966		1,500,000		1,500,000
1967	2,221,000	2,000,000		4,221,000
1968	$1,958,329 (ETV)	$4,469,752	$13,968,143 ($4,000,000 additional authorized but unissued)	$20,396,224

Source: Finance Division, Department of Administration, State of Vermont.

TABLE 37

ANTICIPATED FUNDS FOR HIGHER EDUCATION UNDER FISCAL 1969 TAX STRUCTURE
(In Thousands)

Fiscal Year	Anticipated General Fund Revenues[1]	14.4% of Fund	15.1% of Fund	17.0% of Fund
1969	$ 70,984	$10,222	$10,719	$12,067
1970	77,860	11,212	11,757	13,236
1971	84,211	12,126	12,716	14,316
1972	91,000	13,104	13,741	15,470
1973	97,789	14,082	14,766	16,624
1974	104,578	15,059	15,791	17,778
1975	111,367	16,037	16,816	18,932

[1] Anticipated General Fund Revenues for 1969, 1970 and 1971 were provided by Alan J. Charron, Revenue Research Analyst for the State. Data for the remaining years represent the opinion of the writer as to reasonable estimates. These estimates have been discussed with Mr. Charron, and he agrees that they may be as reasonable as any at this time. The tax structure of fiscal 1969 was presumed in revenue estimates.

TABLE 38

ANTICIPATED GENERAL FUND FUNDS FOR HIGHER EDUCATION UNDER PROPOSED TAX STRUCTURE (In Millions)

Fiscal Year	General Fund Funds for Higher Education	14.4% of Fund	15.1% of Fund	17.0% of Fund
1970	$ 96	$ 13.8	$14.5	$ 16.3
1971*	103	14.8	15.6	17.5
1972	110	15.8	16.6	18.7
1973	117	16.8	17.7	19.9
1974	124	17.9	18.7	21.1
1975	131	18.9	19.8	22.3

*Data beyond 1970 estimated by writer.